

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-92: Liste von Genen, deren Expression durch Pep13-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray -Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sp}}, NLP_{P_p} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13
261247_AT	AT1G20070	expressed protein	4,3
261266_AT	AT1G26770	expansin, putative (EXP10)	3,523
246401_AT	AT1G57560	myb family transcription factor (MYB50)	2,02
245866_S_AT	AT1G57990	purine permease-related	3,064
264968_AT	AT1G67360	rubber elongation factor (REF) family protein	2,046
259856_AT	AT1G68440	expressed protein	2,348
260335_AT	AT1G74000	strictosidine synthase family protein	7,035
264130_AT	AT1G79160	expressed protein	2,367
261899_AT	AT1G80820	cinnamoyl-CoA reductase, putative	2,902
267147_AT	AT2G38240	oxidoreductase, 2OG-Fe(II) oxygenase family protein	2,899
266368_AT	AT2G41380	embryo-abundant protein-related	2,044
257654_AT	AT3G13310	DNAJ heat shock N-terminal domain-containing protein	3,056
256964_AT	AT3G13520	arabinogalactan-protein (AGP12)	2,343
252265_AT	AT3G49620	2-oxoacid-dependent oxidase, putative (DIN11)	11,1
252220_AT	AT3G49940	LOB domain protein 38 / lateral organ boundaries domain protein 38 (LBD38)	2,112
251176_AT	AT3G63380	calcium-transporting ATPase, plasma membrane-type, putative / Ca(2+)-ATPase, putative (ACA12)	3,163
255127_AT	AT4G08300	nodulin MtN21 family protein	2,281
245277_AT	AT4G15550	UDP-glucose	2,693
245506_AT	AT4G15700	glutaredoxin family protein	2,072
254543_AT	AT4G19810	glycosyl hydrolase family 18 protein	2,222
254077_AT	AT4G25640	MATE efflux family protein	2,033
253405_AT	AT4G32800	AP2 domain-containing transcription factor TINY, putative	2,135
253125_AT	AT4G36040	DNAJ heat shock N-terminal domain-containing protein (J11)	2,473
250983_AT	AT5G02780	In2-1 protein, putative	3,846
250793_AT	AT5G05600	oxidoreductase, 2OG-Fe(II) oxygenase family protein	3,716
247866_AT	AT5G57550	xyloglucan	2,504
247706_AT	AT5G59480	haloacid dehalogenase-like hydrolase family protein	2,173

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-93: Liste von Genen, deren Expression durch flg22-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray -Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sp}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	flg22
264833_AT	AT1G03590	protein phosphatase 2C family protein / PP2C family protein	2,864
261167_AT	AT1G04980	thioredoxin family protein	2,141
256062_AT	AT1G07090	expressed protein	2,069
261070_AT	AT1G07390	leucine-rich repeat family protein	2,89
264261_AT	AT1G09240	nicotianamine synthase, putative	2,3
264264_AT	AT1G09250	expressed protein	2,563
264389_AT	AT1G11960	early-responsive to dehydration protein-related / ERD protein-related	2,403
262826_AT	AT1G13080	cytochrome P450 family protein	4,065
262827_AT	AT1G13100	cytochrome P450 71B29, putative (CYP71B29)	3,03
261766_AT	AT1G15580	auxin-responsive protein / indoleacetic acid-induced protein 5 (IAA5) / auxin-induced protein (AUX2-27)	2,511
262803_AT	AT1G21000	zinc-binding family protein	2,055
264974_AT	AT1G27050	homeobox-leucine zipper family protein	2,006
259579_AT	AT1G28010	multidrug resistance P-glycoprotein, putative	2,54
262470_AT	AT1G50180	disease resistance protein (CC-NBS-LRR class), putative	2,036
260590_AT	AT1G53310	phosphoenolpyruvate carboxylase, putative / PEP carboxylase, putative (PPC1)	2,125
264731_AT	AT1G62150	mitochondrial transcription termination factor-related / mTERF-related	2,117
259793_AT	AT1G64380	AP2 domain-containing transcription factor, putative	3,692
264998_AT	AT1G67330	expressed protein	2,379
260350_AT	AT1G69410	eukaryotic translation initiation factor 5A, putative / eIF-5A, putative	2,527
256299_AT	AT1G69530	expansin, putative (EXP1)	2,608
260414_AT	AT1G69850	nitrate transporter (NLT1)	2,171
262291_AT	AT1G70790	C2 domain-containing protein	2,014
262314_AT	AT1G70810	C2 domain-containing protein	2,209
260143_AT	AT1G71880	sucrose transporter / sucrose-proton symporter (SUC1)	3,079
260398_AT	AT1G72320	pumilio/Puf RNA-binding domain-containing protein	2,024
261726_AT	AT1G76270	expressed protein	2,248
261881_AT	AT1G80760	major intrinsic family protein / MIP family protein	2,606
261895_AT	AT1G80830	NRAMP metal ion transporter 1 (NRAMP1)	2,326

263553_AT	AT2G16430	purple acid phosphatase (PAP10)	3,113
266532_AT	AT2G16890	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,294
266062_AT	AT2G18730	diacylglycerol kinase, putative	2,177
267266_AT	AT2G23150	NRAMP metal ion transporter 3 (NRAMP3)	2,256
266574_AT	AT2G23890	expressed protein	2,16
265614_AT	AT2G25355	E3 ubiquitin ligase SCF complex subunit SKP1/ASK1 (At3), putative	2,048
266288_S_AT	AT2G29140	glutathione S-transferase, putative	2,168
265730_AT	AT2G32220	60S ribosomal protein L27 (RPL27A)	2,199
263904_AT	AT2G36380	ABC transporter family protein	2,521
266447_AT	AT2G43290	calmodulin-like protein (MSS3)	2,605
267368_AT	AT2G44350	citrate synthase, mitochondrial, putative	2,134
266718_AT	AT2G46800	zinc transporter (ZAT)	2,422
266758_AT	AT2G46920	protein phosphatase 2C family protein / PP2C family protein	2,35
258162_AT	AT3G17810	dihydroorotate dehydrogenase family protein / dihydroorotate oxidase family protein	2,012
258160_AT	AT3G17820	glutamine synthetase (GS1)	2,08
257868_AT	AT3G25070	RPM1-interacting protein 4 (RIN4)	2,277
257743_AT	AT3G27390	expressed protein	2,026
256578_AT	AT3G28200	peroxidase, putative	2,162
256596_AT	AT3G28540	AAA-type ATPase family protein	2,337
252204_AT	AT3G50340	expressed protein	2,505
252080_AT	AT3G51670	SEC14 cytosolic factor family protein / phosphoglyceride transfer family protein	3,211
251879_AT	AT3G54200	expressed protein	2,035
251513_AT	AT3G59220	pirin, putative	2,336
251310_AT	AT3G61150	homeobox-leucine zipper family protein / homeodomain GLABRA2 like protein 1 (HD-GL2-1)	2,273
245608_AT	AT4G14350	protein kinase family protein	2,193
254608_AT	AT4G18910	aquaglyceroporin / NOD26-like major intrinsic protein 2 (NLM2)	2,691
254594_AT	AT4G18930	cyclic phosphodiesterase	2,058
254250_AT	AT4G23290	protein kinase family protein	2,17
254259_S_AT	AT4G23420	short-chain dehydrogenase/reductase (SDR) family protein	2,311
253638_AT	AT4G30470	cinnamoyl-CoA reductase-related	4,081
253636_AT	AT4G30500	expressed protein	2,205
253493_AT	AT4G31820	phototropic-responsive NPH3 family protein	2,245
253322_AT	AT4G33980	expressed protein	2,308
252866_AT	AT4G39840	expressed protein	2,044
250832_AT	AT5G04950	nicotianamine synthase, putative	2,038
250776_AT	AT5G05320	monooxygenase, putative (MO3)	2,027

250758_AT	AT5G06000	eukaryotic translation initiation factor 3G, putative / eIF3g, putative	2,015
250365_AT	AT5G11410	protein kinase family protein	2,059
250350_AT	AT5G12010	expressed protein	2,311
250327_AT	AT5G12050	expressed protein	2,073
246461_AT	AT5G16930	AAA-type ATPase family protein	2,277
249944_AT	AT5G22290	no apical meristem (NAM) family protein	2,028
249769_AT	AT5G24120	RNA polymerase sigma subunit SigE (sigE) / sigma-like factor (SIG5)	2,278
249283_AT	AT5G41800	amino acid transporter family protein	4,014
249278_AT	AT5G41900	hydrolase, alpha/beta fold family protein	4,001
248282_AT	AT5G52900	expressed protein	4,136
248036_AT	AT5G55915	nucleolar protein-like	2,273
247874_AT	AT5G57710	heat shock protein-related	2,385
247884_AT	AT5G57800	CER1 protein, putative (WAX2)	2,247
247722_AT	AT5G59150	Ras-related GTP-binding protein, putative	2,192
247529_AT	AT5G61520	hexose transporter, putative	2,147
247455_AT	AT5G62470	myb family transcription factor (MYB96)	2,167

Tabelle 7-94: Liste von Genen, deren Expression durch HrpZ_{P_{sph}}-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	HrpZ _{P_{sph}}
264178_AT	AT1G02170	latex-abundant family protein (AMC1) / caspase family protein	2,316
260913_AT	AT1G02500	S-adenosylmethionine synthetase 1 (SAM1)	2,415
262114_AT	AT1G02860	SPX (SYG1/Pho81/XPR1) domain-containing protein / zinc finger (C3HC4-type RING finger) protein-related	2,319
263165_AT	AT1G03060	WD-40 repeat family protein / beige-related	2,162
264321_AT	AT1G04200	expressed protein	2,773
264570_AT	AT1G05350	thiF family protein	2,109
260829_S_AT	AT1G06870	signal peptidase, putative	2,51
256058_AT	AT1G07240	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,44
261692_AT	AT1G08450	calreticulin 3 (CRT3)	2,512
264255_AT	AT1G09140	SF2/ASF-like splicing modulator (SRP30)	2,102
264674_AT	AT1G09815	DNA polymerase delta subunit 4 family	2,098
264522_AT	AT1G10050	glycosyl hydrolase family 10 protein / carbohydrate-binding domain-containing protein	2,368
261818_AT	AT1G11390	ABC1 family protein	2,079
259512_AT	AT1G12360	cytokinesis-related Sec1 protein (KEULE)	2,706
259484_AT	AT1G12580	protein kinase family protein	2,165
262775_AT	AT1G13000	expressed protein	2,059
262772_AT	AT1G13210	haloacid dehalogenase-like hydrolase family protein	3,406
262607_AT	AT1G13990	expressed protein	2,3
262837_AT	AT1G14830	dynamamin-like protein C (DL1C)	2,065
262599_AT	AT1G15350	expressed protein	2,275
246327_AT	AT1G16670	protein kinase family protein	2,827
261405_AT	AT1G18740	expressed protein	2,081
260671_AT	AT1G19310	zinc finger (C3HC4-type RING finger) family protein	2,199
260665_AT	AT1G19360	expressed protein	2,411
261458_AT	AT1G21080	DNAJ heat shock N-terminal domain-containing protein	2,099
261453_AT	AT1G21130	O-methyltransferase, putative	3,595
260899_AT	AT1G21370	expressed protein	2,207
262488_AT	AT1G21820	unknown protein EST gb AA586241 comes from this gene	2,228

255953_AT	AT1G22070	bZIP family transcription factor (TGA3)	2,453
261938_AT	AT1G22510	zinc finger (C3HC4-type RING finger) family protein	2,216
263015_AT	AT1G23430	hypothetical protein similar to hypothetical protein GB:AAF27077 GI:6730656 from (<i>Arabidopsis thaliana</i>)	2,253
264867_AT	AT1G24150	formin homology 2 domain-containing protein / FH2 domain-containing protein	4,486
265028_AT	AT1G24530	transducin family protein / WD-40 repeat family protein	4,975
245642_AT	AT1G25275	expressed protein	2,124
255734_AT	AT1G25550	myb family transcription factor	2,377
255739_AT	AT1G25580	no apical meristem (NAM) family protein	2,221
245666_AT	AT1G28280	VQ motif-containing protein	2,309
255994_AT	AT1G29760	expressed protein	2,095
260049_AT	AT1G29940	DNA-directed RNA polymerase family protein	2,112
260026_AT	AT1G29970	expressed protein	2,089
260023_AT	AT1G30040	gibberellin 2-oxidase / GA2-oxidase (GA2OX2)	2,334
265100_AT	AT1G31010	expressed protein	2,205
263704_AT	AT1G31130	expressed protein	2,423
261192_AT	AT1G32870	no apical meristem (NAM) family protein	2,19
245768_AT	AT1G33590	disease resistance protein-related / LRR protein-related	2,046
262540_AT	AT1G34260	phosphatidylinositol-4-phosphate 5-kinase family protein	2,488
262237_AT	AT1G48320	thioesterase family protein	3,049
260756_AT	AT1G48970	eukaryotic translation initiation factor 2B family protein / eIF-2B family protein	2,438
260772_AT	AT1G49050	aspartyl protease family protein	2,387
256183_AT	AT1G51660	mitogen-activated protein kinase kinase (MAPKK), putative (MKK4)	2,661
260153_AT	AT1G52760	esterase/lipase/thioesterase family protein	2,615
263172_AT	AT1G54170	ataxin-2-related	2,285
260602_AT	AT1G55920	serine O-acetyltransferase, putative	2,714
245828_AT	AT1G57820	zinc finger (C3HC4-type RING finger) family protein	2,272
262896_AT	AT1G59820	haloacid dehalogenase-like hydrolase family protein	2,168
262899_AT	AT1G59870	ABC transporter family protein	2,72
264244_AT	AT1G60440	eukaryotic pantothenate kinase family protein	2,173
264936_AT	AT1G61140	SNF2 domain-containing protein / helicase domain-containing protein / zinc finger protein-related	2,693
265061_AT	AT1G61640	ABC1 family protein	2,816
265005_AT	AT1G61667	expressed protein	2,324
265116_AT	AT1G62480	vacuolar calcium-binding protein-related	2,069
260314_AT	AT1G63830	proline-rich family protein	2,11
263110_AT	AT1G65220	eIF4-gamma/eIF5/eIF2-epsilon domain-containing protein	2,474
261920_AT	AT1G65930	isocitrate dehydrogenase, putative / NADP+ isocitrate dehydrogenase, putative	2,038

245197_AT	AT1G67800	copine-related	2,585
245200_AT	AT1G67850	expressed protein	2,741
260445_AT	AT1G68370	gravity-responsive protein / altered response to gravity protein (ARG1)	2,377
259859_AT	AT1G68410	protein phosphatase 2C-related / PP2C-related	2,189
260411_AT	AT1G69890	expressed protein	2,743
264703_AT	AT1G69960	serine/threonine protein phosphatase PP2A-5 catalytic subunit (PP2A5)	2,016
259745_AT	AT1G71190	expressed protein	2,007
260174_AT	AT1G71940	expressed protein	2,552
260429_AT	AT1G72450	expressed protein	2,381
259890_AT	AT1G72750	mitochondrial import inner membrane translocase subunit Tim17/Tim22/Tim23 family protein	2,101
260094_AT	AT1G73250	GDP-4-keto-6-deoxy-D-mannose-3,5-epimerase-4-reductase (GER1)	2,044
245778_AT	AT1G73530	RNA recognition motif (RRM)-containing protein	2,028
260221_AT	AT1G74670	gibberellin-responsive protein, putative	2,831
262678_AT	AT1G75810	expressed protein	2,101
262671_AT	AT1G76040	calcium-dependent protein kinase, putative / CDPK, putative	3,252
259887_AT	AT1G76360	protein kinase, putative	2,018
259876_AT	AT1G76700	DNAJ heat shock N-terminal domain-containing protein	2,347
262137_AT	AT1G77920	bZIP family transcription factor	2,063
260807_AT	AT1G78310	VQ motif-containing protein	4,006
263126_AT	AT1G78460	SOUL heme-binding family protein	2,187
264304_AT	AT1G78895	expressed protein	2,722
260288_AT	AT1G80530	nodulin family protein	2,149
266342_AT	AT2G01540	C2 domain-containing protein	2,276
265868_AT	AT2G01650	zinc finger (C2H2 type) family protein	2,226
266116_AT	AT2G02180	tobamovirus multiplication protein 3 (TOM3)	2,341
266792_AT	AT2G02860	sucrose transporter / sucrose-proton symporter (SUC3)	2,536
266747_AT	AT2G02870	kelch repeat-containing F-box family protein	2,017
265702_AT	AT2G03450	purple acid phosphatase (PAP9)	2,284
264042_AT	AT2G03760	steroid sulfotransferase, putative	2,51
266428_AT	AT2G07180	protein kinase, putative	3,137
263274_AT	AT2G11520	protein kinase family protein	2,451
264107_S_AT	AT2G13790	leucine-rich repeat family protein / protein kinase family protein	3,257
265917_AT	AT2G15080	disease resistance family protein	2,215
265476_AT	AT2G15570	thioredoxin M-type 3, chloroplast (TRX-M3)	2,183
263096_AT	AT2G16060	non-symbiotic hemoglobin 1 (HB1) (GLB1)	2,033
263419_AT	AT2G17220	protein kinase, putative	2,655

263076_AT	AT2G17520	protein kinase family protein / Ire1 homolog-2 (IRE1-2)	2,047
263072_AT	AT2G17530	protein kinase family protein	2,604
265822_AT	AT2G17980	sec1 family protein	2,264
267490_AT	AT2G19130	S-locus lectin protein kinase family protein	2,655
267279_AT	AT2G19460	expressed protein	2,185
266703_AT	AT2G19880	ceramide glucosyltransferase, putative	2,245
263374_AT	AT2G20560	DNAJ heat shock family protein	3,663
265424_AT	AT2G20780	mannitol transporter, putative	2,426
263749_AT	AT2G21520	SEC14 cytosolic factor, putative / phosphoglyceride transfer protein, putative	2,092
265987_AT	AT2G24240	potassium channel tetramerisation domain-containing protein	3,139
266659_AT	AT2G25850	nucleotidyltransferase family protein	2,211
267375_AT	AT2G26300	guanine nucleotide binding protein (G-protein) alpha-1 subunit / GP-alpha-1 (GPA1)	2,517
245038_AT	AT2G26560	patatin, putative	7,485
265648_AT	AT2G27500	glycosyl hydrolase family 17 protein	3,626
266261_AT	AT2G27580	zinc finger (AN1-like) family protein	2,14
266781_AT	AT2G28940	protein kinase family protein	2,676
266297_AT	AT2G29570	proliferating cell nuclear antigen 2 (PCNA2)	2,141
266834_S_AT	AT2G30020	protein phosphatase 2C, putative / PP2C, putative	3,059
267300_AT	AT2G30140	UDP-glucuronosyl/UDP-glucosyl transferase family protein	3,259
267467_AT	AT2G30580	zinc finger (C3HC4-type RING finger) family protein	2,011
267564_AT	AT2G30740	serine/threonine protein kinase, putative	2,042
266476_AT	AT2G31090	expressed protein	2,899
263467_AT	AT2G31730	ethylene-responsive protein, putative	2,182
265676_AT	AT2G32070	CCR4-NOT transcription complex protein, putative	2,004
267062_AT	AT2G32600	hydroxyproline-rich glycoprotein family protein	2,065
267546_AT	AT2G32680	disease resistance family protein	2,913
267550_AT	AT2G32800	protein kinase family protein	2,947
263930_AT	AT2G36300	integral membrane Yip1 family protein	2,068
263838_AT	AT2G36880	S-adenosylmethionine synthetase, putative	2,012
267055_AT	AT2G38360	prenylated rab acceptor (PRA1) family protein	3,214
266964_AT	AT2G39480	ABC transporter family protein	2,467
267623_AT	AT2G39650	expressed protein	3,58
263823_S_AT	AT2G40350	AP2 domain-containing transcription factor, putative (DREB2)	2,393
266053_AT	AT2G40730	HEAT repeat-containing protein	2,092
266049_AT	AT2G40780	hypothetical protein	2,455
266371_AT	AT2G41410	calmodulin, putative	2,127

266366_AT	AT2G41420	proline-rich family protein	2,491
267104_AT	AT2G41430	dehydration-induced protein (ERD15)	2,284
260522_X_AT	AT2G41730	expressed protein	3,807
267537_AT	AT2G41880	guanylate kinase 1 (GK-1)	2,917
260571_AT	AT2G43790	mitogen-activated protein kinase, putative / MAPK, putative (MPK6)	2,24
260567_AT	AT2G43820	UDP-glucuronosyl/UDP-glucosyl transferase family protein	3,36
266105_AT	AT2G45070	sec61beta family protein	2,012
266103_AT	AT2G45140	vesicle-associated membrane protein, putative / VAMP, putative	2,016
266555_AT	AT2G46270	G-box binding factor 3 (GBF3)	2,27
266749_AT	AT2G47060	serine/threonine protein kinase, putative	2,307
251234_S_AT	AT2G47650	NAD-dependent epimerase/dehydratase family protein	2,411
259194_AT	AT3G01540	DEAD box RNA helicase (DRH1)	2,277
259178_AT	AT3G01650	copine-related	2,138
258855_AT	AT3G02070	OTU-like cysteine protease family protein	3,05
258617_AT	AT3G03000	calmodulin, putative	3,75
259058_AT	AT3G03470	cytochrome P450, putative	2,314
258818_AT	AT3G04580	ethylene receptor, putative (EIN4)	2,741
258880_AT	AT3G06420	autophagy 8h (APG8h)	2,578
258830_AT	AT3G07090	expressed protein	2,454
259250_AT	AT3G07580	expressed protein	2,949
259252_AT	AT3G07610	transcription factor jumonji (jmjC) domain-containing protein	2,043
259230_AT	AT3G07780	expressed protein	2,318
258665_AT	AT3G08710	thioredoxin family protein	2,078
258683_AT	AT3G08760	protein kinase family protein	2,182
258939_AT	AT3G10020	expressed protein	2,002
256250_AT	AT3G11320	phosphate translocator-related	2,041
259071_AT	AT3G11650	harpin-induced family protein / HIN1 family protein / harpin-responsive family protein / NDR1/HIN1-like protein 2	2,322
258731_AT	AT3G11880	expressed protein	2,011
256238_AT	AT3G12400	tumour susceptibility gene 101 (TSG101) family protein	2,297
256240_AT	AT3G12600	MutT/nudix family protein	2,658
257861_AT	AT3G13050	transporter-related	2,274
257708_AT	AT3G13330	expressed protein	2,77
258202_AT	AT3G13940	expressed protein	2,194
257010_AT	AT3G14090	exocyst subunit EXO70 family protein	2,132
257235_AT	AT3G15060	Ras-related GTP-binding family protein	3,206
257058_AT	AT3G15352	cytochrome c oxidase copper chaperone-related	2,318

258402_AT	AT3G15450	expressed protein	2,715
258049_AT	AT3G16220	expressed protein	2,451
257553_AT	AT3G16830	WD-40 repeat family protein	2,577
257883_AT	AT3G16940	calmodulin-binding protein	2,021
258351_AT	AT3G17700	cyclic nucleotide-binding transporter 1 / CNBT1 (CNGC20)	2,522
258348_AT	AT3G17710	F-box family protein	2,174
257866_AT	AT3G17770	dihydroxyacetone kinase family protein	2,246
258158_AT	AT3G17790	acid phosphatase type 5 (ACP5)	2,174
257897_AT	AT3G18030	halotolerance protein (HAL3A)	2,301
256891_AT	AT3G19030	expressed protein	2,269
258024_AT	AT3G19360	zinc finger (CCCH-type) family protein	2,355
257967_AT	AT3G19910	zinc finger (C3HC4-type RING finger) family protein	2,033
257122_AT	AT3G20250	pumilio/Puf RNA-binding domain-containing protein	2,799
258046_AT	AT3G21220	mitogen-activated protein kinase kinase (MAPKK), putative (MKK5)	2,249
258166_AT	AT3G21540	transducin family protein / WD-40 repeat family protein	2,116
256616_AT	AT3G22260	OTU-like cysteine protease family protein	4,049
258298_AT	AT3G23300	dehydration-responsive protein-related	2,076
258132_AT	AT3G24550	protein kinase family protein	2,061
257838_AT	AT3G25210	pentatricopeptide (PPR) repeat-containing protein	2,43
256755_AT	AT3G25600	calmodulin, putative	3,633
258072_AT	AT3G26090	expressed protein	2,773
257788_AT	AT3G27010	TCP family transcription factor, putative	2,095
257972_AT	AT3G27560	protein kinase (ATN1)	2,093
258194_AT	AT3G29170	expressed protein	2,462
257315_AT	AT3G30775	proline oxidase, mitochondrial / osmotic stress-responsive proline dehydrogenase (POX) (PRO1) (ERD5)	2,57
252738_AT	AT3G43240	ARID/BRIGHT DNA-binding domain-containing protein	2,04
252679_AT	AT3G44260	CCR4-NOT transcription complex protein, putative	2,259
252592_AT	AT3G45640	mitogen-activated protein kinase, putative / MAPK, putative (MPK3)	2,454
252329_AT	AT3G48760	zinc finger (DHHC type) family protein	2,34
252230_AT	AT3G49810	U-box domain-containing protein	2,295
252222_AT	AT3G49840	proline-rich family protein	2,024
252179_AT	AT3G50760	glycosyl transferase family 8 protein	2,536
252060_AT	AT3G52430	phytoalexin-deficient 4 protein (PAD4)	2,799
251975_AT	AT3G53230	cell division cycle protein 48, putative / CDC48, putative	2,575
251980_AT	AT3G53270	expressed protein	2,057
251987_AT	AT3G53280	cytochrome P450 71B5 (CYP71B5)	2,183

251862_AT	AT3G54850	armadillo/beta-catenin repeat family protein / U-box domain-containing family protein	2,432
251786_AT	AT3G55270	MAP kinase phosphatase (MKP1)	2,47
251789_AT	AT3G55450	protein kinase, putative	2,049
251773_AT	AT3G55960	NLI interacting factor (NIF) family protein	2,224
251704_AT	AT3G56360	expressed protein	2,012
251659_AT	AT3G57090	expressed protein	2,013
251624_AT	AT3G57280	expressed protein	2,616
251649_AT	AT3G57330	calcium-transporting ATPase, plasma membrane-type, putative / Ca ²⁺ -ATPase, putative (ACA11)	2,903
251636_AT	AT3G57530	calcium-dependent protein kinase, putative / CDPK, putative	2,803
251494_AT	AT3G59350	serine/threonine protein kinase, putative	2,791
251484_AT	AT3G59640	glycine-rich protein	2,194
251192_AT	AT3G62720	galactosyl transferase GMA12/MNN10 family protein	2,806
251200_AT	AT3G63010	expressed protein	2,873
251121_AT	AT3G63420	heterotrimeric G protein gamma-subunit (AGG1)	2,388
251145_AT	AT3G63500	expressed protein	2,078
255704_AT	AT4G00170	vesicle-associated membrane family protein / VAMP family protein	2,079
255716_AT	AT4G00330	protein kinase family protein	2,4
255677_AT	AT4G00500	lipase class 3 family protein / calmodulin-binding heat-shock protein-related	2,809
255681_AT	AT4G00550	UDP-galactose	2,134
255683_AT	AT4G00570	malate oxidoreductase, putative	2,057
255654_AT	AT4G00970	protein kinase family protein	2,466
255549_AT	AT4G01950	phospholipid/glycerol acyltransferase family protein	2,341
255526_AT	AT4G02350	exocyst complex subunit Sec15-like family protein	2,082
255502_AT	AT4G02410	lectin protein kinase family protein	3,259
255485_AT	AT4G02550	expressed protein	2,131
255382_AT	AT4G03430	pre-mRNA splicing factor-related	2,107
255283_AT	AT4G04620	autophagy 8b (APG8b)	2,016
255306_AT	AT4G04740	calcium-dependent protein kinase, putative / CDPK, putative	2,005
255133_AT	AT4G08320	tetratricopeptide repeat (TPR)-containing protein	2,186
255134_AT	AT4G08330	expressed protein	2,677
255095_AT	AT4G08500	mitogen-activated protein kinase kinase, putative	2,119
254923_AT	AT4G11240	serine/threonine protein phosphatase PP1 isozyme 6 (PP1BG) (TOPP6)	2,189
254846_AT	AT4G11835	Expressed protein ; supported by full-length cDNA: Ceres: 24475.	2,246
254861_AT	AT4G12040	zinc finger (AN1-like) family protein	2,215
254770_AT	AT4G13340	leucine-rich repeat family protein / extensin family protein	2,115
245273_AT	AT4G14950	expressed protein	2,044

245587_AT	AT4G15020	expressed protein	2,485
245313_AT	AT4G15420	PRLI-interacting factor K	2,119
245334_AT	AT4G15800	rapid alkalization factor (RALF) family protein	2,213
245293_AT	AT4G16660	heat shock protein 70, putative / HSP70, putative	2,012
245370_AT	AT4G16840	expressed protein	3,094
245266_AT	AT4G17070	expressed protein	2,527
245247_AT	AT4G17230	scarecrow-like transcription factor 13 (SCL13)	2,257
245324_AT	AT4G17260	L-lactate dehydrogenase, putative	2,491
245278_AT	AT4G17730	syntaxin 23 (SYP23) / PEP12-like protein	2,042
254584_AT	AT4G19490	expressed protein	2,033
254549_AT	AT4G19880	glutathione S-transferase-related	2,348
254352_AT	AT4G22320	expressed protein	2,562
254265_S_AT	AT4G23140	receptor-like protein kinase 5 (RLK5)	2,219
254261_AT	AT4G23460	beta-adaptin, putative	2,12
254192_AT	AT4G23850	long-chain-fatty-acid--CoA ligase / long-chain acyl-CoA synthetase	2,286
254204_AT	AT4G24160	hydrolase, alpha/beta fold family protein	3,245
254083_AT	AT4G24920	protein transport protein SEC61 gamma subunit, putative	2,217
245237_AT	AT4G25520	transcriptional co-regulator family protein	2,213
254082_AT	AT4G25720	glutamine cyclotransferase family protein	2,008
253976_AT	AT4G26610	protein kinase, putative	2,187
253954_AT	AT4G26970	aconitate hydratase, cytoplasmic, putative / citrate hydro-lyase/aconitase, putative	2,014
253780_AT	AT4G28400	protein phosphatase 2C, putative / PP2C, putative	2,529
253779_AT	AT4G28490	leucine-rich repeat transmembrane protein kinase, putative	2,227
253647_AT	AT4G29950	microtubule-associated protein	2,441
253664_AT	AT4G30210	NADPH-cytochrome p450 reductase, putative / NADPH-ferrihemoprotein reductase, putative	2,318
253666_AT	AT4G30270	MERI-5 protein (MERI-5) (MERI5B) / endo-xyloglucan transferase / xyloglucan endo-1,4-beta-D-glucanase (SEN4)	3,663
253637_AT	AT4G30390	expressed protein	2,443
253630_AT	AT4G30490	AFG1-like ATPase family protein	2,297
253453_AT	AT4G31860	protein phosphatase 2C, putative / PP2C, putative	2,123
253500_AT	AT4G31920	two-component responsive regulator family protein / response regulator family protein	2,101
253467_AT	AT4G32140	expressed protein	2,016
253415_AT	AT4G33060	peptidyl-prolyl cis-trans isomerase cyclophilin-type family protein	2,033
253361_AT	AT4G33100	expressed protein	2,308
253374_AT	AT4G33140	expressed protein	2,069
253377_AT	AT4G33300	disease resistance protein (CC-NBS-LRR class), putative	2,05
253324_AT	AT4G33940	zinc finger (C3HC4-type RING finger) family protein	2,243

253204_AT	AT4G34460	guanine nucleotide-binding protein beta subunit (GB1) / GTP-binding protein beta subunit (AGB1) / transducin	3,153
246270_AT	AT4G36500	expressed protein	3,214
246201_AT	AT4G36750	quinone reductase family protein	2,034
253063_AT	AT4G37640	calcium-transporting ATPase 2, plasma membrane-type / Ca(2+)-ATPase isoform 2 (ACA2)	3,651
252861_AT	AT4G39820	expressed protein	2,46
251071_AT	AT5G01950	leucine-rich repeat transmembrane protein kinase, putative	2,197
251020_AT	AT5G02270	ABC transporter family protein	3,03
250948_AT	AT5G03490	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,122
250875_AT	AT5G04020	calmodulin-binding protein-related (PICBP)	2,308
245694_AT	AT5G04170	calcium-binding EF hand family protein	2,359
250829_AT	AT5G04720	disease resistance protein (CC-NBS-LRR class), putative	2,026
250819_AT	AT5G05100	expressed protein	2,098
250796_AT	AT5G05300	expressed protein	7,583
250698_AT	AT5G06810	mitochondrial transcription termination factor-related / mTERF-related	2,114
250463_AT	AT5G10030	bZIP family transcription factor (OBF4)	2,366
250357_AT	AT5G11730	expressed protein	2,324
250298_AT	AT5G11860	NLI interacting factor (NIF) family protein	2,041
245178_AT	AT5G12390	expressed protein	2,233
245981_AT	AT5G13100	expressed protein	2,309
245853_AT	AT5G13500	expressed protein	2,464
250210_AT	AT5G13890	expressed protein	2,046
246453_AT	AT5G16830	syntaxin 21 (SYP21) / PEP12 homolog	2,034
246421_AT	AT5G16880	VHS domain-containing protein / GAT domain-containing protein	2,414
246460_AT	AT5G16910	cellulose synthase family protein	2,582
246422_AT	AT5G17060	ADP-ribosylation factor, putative	2,489
250065_AT	AT5G17910	expressed protein	2,132
250033_AT	AT5G18110	novel cap-binding protein (nCBP)	2,347
250032_AT	AT5G18170	glutamate dehydrogenase 1 (GDH1)	2,179
249967_AT	AT5G19050	expressed protein	2,306
249918_AT	AT5G19240	expressed protein	2,572
246071_AT	AT5G20150	SPX (SYG1/Pho81/XPR1) domain-containing protein	3,919
246114_AT	AT5G20250	raffinose synthase family protein / seed imbibition protein, putative (din10)	2,102
245686_AT	AT5G22060	DNAJ heat shock protein, putative	2,716
249910_AT	AT5G22630	prephenate dehydratase family protein	2,047
249841_AT	AT5G23520	expressed protein	2,46
249796_AT	AT5G23540	26S proteasome regulatory subunit, putative	2,034

249806_AT	AT5G23850	expressed protein	2,498
249746_AT	AT5G24590	turnip crinkle virus-interacting protein / TCV-interacting protein (TIP)	2,244
246976_S_AT	AT5G24810	ABC1 family protein	2,752
246931_AT	AT5G25170	expressed protein	2,245
246612_AT	AT5G35320	expressed protein	2,469
246620_AT	AT5G36220	cytochrome P450 81D1 (CYP81D1) (CYP91A1)	2,641
249393_AT	AT5G40170	disease resistance family protein	2,739
249072_AT	AT5G44060	expressed protein	2,133
248868_AT	AT5G46780	VQ motif-containing protein	3,201
248826_AT	AT5G47080	casein kinase II beta chain, putative	2,046
248792_AT	AT5G47200	Ras-related GTP-binding protein, putative	2,499
248794_AT	AT5G47220	ethylene-responsive element-binding factor 2 (ERF2)	2,748
248766_AT	AT5G47580	expressed protein	2,149
248612_AT	AT5G49530	SIN-like family protein	2,105
248556_AT	AT5G50350	expressed protein	2,627
248501_AT	AT5G50440	Golgi SNARE protein membrin 12 (MEMB12)	2,427
248463_AT	AT5G51130	expressed protein	2,258
248426_AT	AT5G51740	peptidase M48 family protein	2,116
248394_AT	AT5G52070	agenet domain-containing protein	2,347
248322_AT	AT5G52760	heavy-metal-associated domain-containing protein	4,828
248300_AT	AT5G53000	protein phosphatase 2A-associated 46 kDa protein / PP2A regulatory subunit (TAP46)	2,321
248270_AT	AT5G53450	protein kinase family protein	2,084
248217_AT	AT5G53560	cytochrome b5 isoform 1	2,026
248195_AT	AT5G54110	vesicle-associated membrane family protein / VAMP family protein	2,048
248142_AT	AT5G55030	expressed protein	2,517
248068_AT	AT5G55610	expressed protein	2,35
247835_AT	AT5G57910	expressed protein	2,15
247847_AT	AT5G58110	expressed protein	2,022
247739_AT	AT5G59240	40S ribosomal protein S8 (RPS8B)	2,193
247677_AT	AT5G59420	oxysterol-binding family protein	2,817
247708_AT	AT5G59550	zinc finger (C3HC4-type RING finger) family protein	3,787
247571_AT	AT5G61210	SNAP25 homologous protein SNAP33 (SNAP33) (SNAP33B) / synaptosomal-associated protein SNAP25-like 1 / s	3,435
247545_AT	AT5G61530	small G protein family protein / RhoGAP family protein	2,207
247497_AT	AT5G61770	brix domain-containing protein	2,008
247429_AT	AT5G62620	galactosyltransferase family protein	2,19
247346_AT	AT5G63770	diacylglycerol kinase, putative	2,511

247314_AT	AT5G64000	3'(2'),5'-bisphosphate nucleotidase, putative / inositol polyphosphate 1-phosphatase, putative	3,29
247176_AT	AT5G65110	acyl-CoA oxidase (ACX2)	2,158
247197_AT	AT5G65240	leucine-rich repeat family protein / protein kinase family protein	2,672
247125_AT	AT5G66070	zinc finger (C3HC4-type RING finger) family protein	3,798
247138_AT	AT5G66120	3-dehydroquinate synthase, putative	2,051
247137_AT	AT5G66210	calcium-dependent protein kinase family protein / CDPK family protein	3,373
247054_AT	AT5G66730	zinc finger (C2H2 type) family protein	2,052
247044_AT	AT5G66850	protein kinase family protein	3,158

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-95: Liste von Genen, deren Expression durch NLP_{pp}-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sp}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	NLP _{pp}
264365_S_AT	AT1G03220	extracellular dermal glycoprotein, putative / EDGP, putative	2,428
260823_AT	AT1G06770	zinc finger (C3HC4-type RING finger) family protein	2,309
264648_AT	AT1G09080	luminal binding protein 3 (BiP-3) (BP3)	23,12
264708_AT	AT1G09740	ethylene-responsive protein, putative	2,525
262786_AT	AT1G10740	expressed protein	2,145
261023_AT	AT1G12200	flavin-containing monooxygenase family protein / FMO family protein	2,313
261525_AT	AT1G14330	kelch repeat-containing F-box family protein	2,103
261836_AT	AT1G16090	wall-associated kinase-related	21,62
257478_AT	AT1G16130	wall-associated kinase, putative	2,771
262731_AT	AT1G16420	latex-abundant protein, putative (AMC8) / caspase family protein	8,149
259403_AT	AT1G17745	D-3-phosphoglycerate dehydrogenase / 3-PGDH	2,43
261719_AT	AT1G18380	expressed protein	4,58
261450_S_AT	AT1G21110	O-methyltransferase, putative	3,428
260919_AT	AT1G21520	expressed protein	2,092
264773_AT	AT1G22900	disease resistance-responsive family protein	3,724
264866_AT	AT1G24140	matrixin family protein	4,489
245641_AT	AT1G25370	expressed protein	2,491
260843_AT	AT1G29060	expressed protein	2,093
263228_AT	AT1G30700	FAD-binding domain-containing protein	128,9
246573_AT	AT1G31680	copper amine oxidase family protein	2,258
246603_AT	AT1G31690	copper amine oxidase, putative	2,017
246373_AT	AT1G51860	leucine-rich repeat protein kinase, putative	2,862
264879_AT	AT1G61260	expressed protein	2,026
264766_AT	AT1G61420	S-locus lectin protein kinase family protein	3,439
265008_AT	AT1G61560	seven transmembrane MLO family protein / MLO-like protein 6 (MLO6)	15,62
260110_AT	AT1G63350	disease resistance protein (CC-NBS-LRR class), putative	2,544
261947_AT	AT1G64470	ubiquitin family protein	2,534
262925_AT	AT1G65730	oligopeptide transporter OPT family protein	3,563

260005_AT	AT1G67920	expressed protein	6,406
256337_AT	AT1G72060	expressed protein	2,055
262381_AT	AT1G72900	disease resistance protein (TIR-NBS class), putative	2,069
260255_AT	AT1G74330	protein kinase, putative	3,415
263406_AT	AT2G04160	subtilisin-like protease (AIR3)	2,006
265499_AT	AT2G15480	UDP-glucuronosyl/UDP-glucosyl transferase family protein	3,622
267289_AT	AT2G23770	protein kinase family protein / peptidoglycan-binding LysM domain-containing protein	3,798
265994_AT	AT2G24170	endomembrane protein 70, putative	2,201
257365_X_AT	AT2G26020	plant defensin-fusion protein, putative (PDF1.2b)	4,531
267610_AT	AT2G26650	potassium channel protein 1 (AKT1)	2,342
266221_AT	AT2G28760	NAD-dependent epimerase/dehydratase family protein	3,289
263426_AT	AT2G31570	glutathione peroxidase, putative	2,063
267140_AT	AT2G38250	DNA-binding protein-related	2,128
266989_AT	AT2G39330	jacalin lectin family protein	2,193
263378_AT	AT2G40180	protein phosphatase 2C, putative / PP2C, putative	12,84
263836_AT	AT2G40330	Bet v I allergen family protein	2,717
245119_AT	AT2G41640	expressed protein	3,171
265853_AT	AT2G42360	zinc finger (C3HC4-type RING finger) family protein	6,61
260568_AT	AT2G43570	chitinase, putative	18,82
267384_AT	AT2G44370	DC1 domain-containing protein	23,39
266884_AT	AT2G44790	uclacyanin II	42,44
266596_AT	AT2G46150	expressed protein	2,956
266552_AT	AT2G46330	arabinogalactan-protein (AGP16)	2,164
245151_AT	AT2G47550	pectinesterase family protein	4,029
258856_AT	AT3G02040	glycerophosphoryl diester phosphodiesterase family protein	4,285
259309_AT	AT3G05050	protein kinase family protein	2,261
259307_AT	AT3G05230	signal peptidase subunit family protein	2,075
259019_AT	AT3G07370	tetratricopeptide repeat (TPR)-containing protein / U-box domain-containing protein	2,102
256781_AT	AT3G13650	disease resistance response	3,513
256799_AT	AT3G18560	expressed protein	2,998
257176_S_AT	AT3G23510	cyclopropane fatty acid synthase, putative / CPA-FA synthase, putative	3,565
258125_S_AT	AT3G23520	hypothetical protein contains Pfam profile: PF01494 FAD binding domain	3,364
258107_AT	AT3G23560	MATE efflux family protein	2,23
258075_AT	AT3G25900	homocysteine S-methyltransferase 1 (HMT-1)	5,516
257745_AT	AT3G29240	expressed protein	2,099
255723_AT	AT3G29575	expressed protein	2,002

252470_AT	AT3G46930	protein kinase family protein	3,108
252387_AT	AT3G47800	aldose 1-epimerase family protein	2,921
252345_AT	AT3G48640	expressed protein	4,214
252346_AT	AT3G48650	pseudogene, At14a-related protein	5,529
252338_AT	AT3G48890	cytochrome b5 domain-containing protein	2,078
252300_AT	AT3G49160	pyruvate kinase family protein	3,415
252311_AT	AT3G49370	calcium-dependent protein kinase, putative / CDPK, putative	3,13
252045_AT	AT3G52450	U-box domain-containing protein	4,967
251884_AT	AT3G54150	embryo-abundant protein-related	11,91
251832_AT	AT3G55150	exocyst subunit EXO70 family protein	28,7
251774_AT	AT3G55840	expressed protein	2,008
251769_AT	AT3G55950	protein kinase family protein	4,236
251436_AT	AT3G59900	expressed protein	4,092
251400_AT	AT3G60420	expressed protein	2,074
255599_AT	AT4G01010	cyclic nucleotide-regulated ion channel, putative (CNGC13)	2,614
255340_AT	AT4G04490	protein kinase family protein	4,958
255291_AT	AT4G04700	calcium-dependent protein kinase, putative / CDPK, putative	3,112
255036_AT	AT4G09560	protease-associated zinc finger (C3HC4-type RING finger) family protein	2,713
254917_AT	AT4G11350	fringe-related protein	2,232
254857_AT	AT4G12120	cytokinesis-related Sec1 protein, putative	6,248
254812_AT	AT4G12250	NAD-dependent epimerase/dehydratase family protein	2,031
254773_AT	AT4G13410	glycosyl transferase family 2 protein	2,663
254660_AT	AT4G18250	receptor serine/threonine kinase, putative	13,45
254468_AT	AT4G20460	NAD-dependent epimerase/dehydratase family protein	7,583
254410_AT	AT4G21410	protein kinase family protein	5,489
254292_AT	AT4G23030	MATE efflux protein-related	3,46
254093_AT	AT4G25110	latex-abundant family protein (AMC2) / caspase family protein	4,067
254060_AT	AT4G25350	EXS family protein / ERD1/XPR1/SYG1 family protein	5,461
253887_AT	AT4G27730	oligopeptide transporter OPT family protein	2,014
253819_AT	AT4G28350	lectin protein kinase family protein	5,641
253768_AT	AT4G28550	RabGAP/TBC domain-containing protein	2,698
253663_AT	AT4G30160	villin, putative	2,668
253392_AT	AT4G32650	inward rectifying potassium channel, putative (KAT3) (AKT4) (KC1)	5,465
253274_AT	AT4G34200	D-3-phosphoglycerate dehydrogenase, putative / 3-PGDH, putative	2,361
253161_AT	AT4G35770	senescence-associated protein (SEN1)	2,122
253124_AT	AT4G36030	armadillo/beta-catenin repeat family protein	2,636

246230_AT	AT4G36710	scarecrow transcription factor family protein	2,06
252825_AT	AT4G39890	Ras-related GTP-binding family protein	3,814
250803_AT	AT5G04980	endonuclease/exonuclease/phosphatase family protein	2,528
250575_AT	AT5G08240	expressed protein	5,932
250493_AT	AT5G09800	U-box domain-containing protein	12,54
250310_AT	AT5G12230	expressed protein	2,042
250323_AT	AT5G12880	proline-rich family protein	3,069
250286_AT	AT5G13320	auxin-responsive GH3 family protein	17,25
250185_AT	AT5G14310	expressed protein	2,036
249860_AT	AT5G22860	serine carboxypeptidase S28 family protein	2,891
249616_S_AT	AT5G37440	DNAJ heat shock N-terminal domain-containing protein	2,002
249550_AT	AT5G38210	serine/threonine protein kinase family protein	2,05
249506_AT	AT5G38880	expressed protein	2,083
249459_AT	AT5G39580	peroxidase, putative	48,38
249423_AT	AT5G39785	expressed protein	3,177
249339_AT	AT5G41100	expressed protein	3,617
249252_AT	AT5G42010	WD-40 repeat family protein	4,171
249052_AT	AT5G44420	plant defensin protein, putative (PDF1.2a)	3,994
249032_AT	AT5G44910	Toll-Interleukin-Resistance (TIR) domain-containing protein	5,788
248934_AT	AT5G46080	protein kinase family protein	12,79
248814_AT	AT5G46910	transcription factor jumonji (jmj) family protein	2,266
248703_AT	AT5G48430	expressed protein	62,41
248395_AT	AT5G52120	F-box family protein / SKP1 interacting partner 3-related	3,063
248253_AT	AT5G53290	AP2 domain-containing transcription factor, putative	4,77
248164_AT	AT5G54490	calcium-binding EF-hand protein, putative	3,738
247949_AT	AT5G57220	cytochrome P450, putative	5,633
247848_AT	AT5G58120	disease resistance protein (TIR-NBS-LRR class), putative	3,297
247740_AT	AT5G58940	protein kinase family protein	2,015
247393_AT	AT5G63130	octicosapeptide/Phox/Bem1p (PB1) domain-containing protein	2,829
247228_AT	AT5G65140	trehalose-6-phosphate phosphatase, putative	2,522
246988_AT	AT5G67340	armadillo/beta-catenin repeat family protein / U-box domain-containing protein	5,888
245003_AT	PSBC	PSII 43 KDa protein	3,037

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Tabelle 7-96: Liste von Genen, deren Expression durch LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray -Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{P_p} und LPS).

Datensatz ID	AGI	Beschreibung	LPS
262133_AT	AT1G78000	sulfate transporter (Sultr1;2)	2,816
263809_AT	AT2G04570	GDSL-motif lipase/hydrolase family protein	2,062
267385_AT	AT2G44380	DC1 domain-containing protein	3,122
244994_AT	NDHF	NADH dehydrogenase ND5	2,081

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Tabelle 7-97: Liste von Genen, deren Expression durch Pep13- und flg22-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray -Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sp}}, NLP_{P_p} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	flg22
264447_AT	AT1G27300	expressed protein	2,306	2,176
261187_AT	AT1G32860	glycosyl hydrolase family 17 protein	2,193	2,383
256725_AT	AT2G34070	expressed protein	2,99	2,074
245885_AT	AT5G09440	phosphate-responsive protein, putative	4,443	2,747
250054_AT	AT5G17860	cation exchanger, putative (CAX7)	2,577	2,842
247149_AT	AT5G65660	hydroxyproline-rich glycoprotein family protein	2,428	3,407

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Tabelle 7-98: Liste von Genen, deren Expression durch Pep13- und HrpZ_{P_{sph}}-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.
Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	HrpZ _{P_{sph}}
264415_AT	AT1G43160	AP2 domain-containing protein RAP2.6 (RAP2.6)	4,36	2,312
245244_AT	AT1G44350	IAA-amino acid hydrolase 6, putative (ILL6) / IAA-Ala hydrolase, putative	3,613	2,158
261754_AT	AT1G76130	alpha-amylase, putative / 1,4-alpha-D-glucan glucanohydrolase, putative	2,028	2,609
263073_AT	AT2G17500	auxin efflux carrier family protein	2,949	2,705
259129_AT	AT3G02150	TCP family transcription factor, putative	2,629	2,774
259037_AT	AT3G09350	armadillo/beta-catenin repeat family protein	2,042	3,33
255064_AT	AT4G08950	phosphate-responsive protein, putative (EXO)	2,01	5,638
255080_AT	AT4G09030	arabinogalactan-protein (AGP10)	3,125	3,392
254063_AT	AT4G25390	protein kinase family protein	2,086	3,2
253628_AT	AT4G30280	xyloglucan	5,262	7,114
249923_AT	AT5G19120	expressed protein	2,328	2,46
248657_AT	AT5G48570	peptidyl-prolyl cis-trans isomerase, putative / FK506-binding protein, putative	2,344	3,855
248199_AT	AT5G54170	expressed protein	2,033	3,008

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Tabelle 7-99: Liste von Genen, deren Expression durch Pep13- und NLP_{pp}-Behandlung nach 4 h in *A. thaliana*-Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sp}h}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	NLP _{pp}
245794_AT	AT1G32170	xyloglucan	3,102	5,807
262072_AT	AT1G59590	expressed protein	2,07	15,21
245193_AT	AT1G67810	Fe-S metabolism associated domain-containing protein	2,821	2,993
260276_AT	AT1G80450	VQ motif-containing protein	3,633	6,627
266071_AT	AT2G18680	expressed protein	2,245	3,862
265674_AT	AT2G32190	expressed protein	6,921	4,948
263948_AT	AT2G35980	harpin-induced family protein (YLS9) / HIN1 family protein / harpin-responsive family protein	8,216	112
266142_AT	AT2G39030	GCN5-related N-acetyltransferase (GNAT) family protein	4,983	2,244
258941_AT	AT3G09940	monodehydroascorbate reductase, putative	4,828	31,48
257517_AT	AT3G16330	expressed protein	3,719	2,337
256627_AT	AT3G19970	expressed protein	2,677	4,74
258277_AT	AT3G26830	cytochrome P450 71B15, putative (CYP71B15)	7,012	64,78
251970_AT	AT3G53150	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,386	13,87
245613_AT	AT4G14450	expressed protein	2,536	8,244
254673_AT	AT4G18430	Ras-related GTP-binding protein, putative	2,487	12,38
254271_AT	AT4G23150	protein kinase family protein	4,163	38,96
254042_AT	AT4G25810	xyloglucan	5,788	3,602
247723_AT	AT5G59220	protein phosphatase 2C, putative / PP2C, putative	2,516	2,994
247264_AT	AT5G64530	no apical meristem (NAM) family protein	2,124	2,619

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Tabelle 7-100: Liste von Genen, deren Expression durch Pep13- und LPS-Behandlung nach 4 h in *A. thaliana*-Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sp}h}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	LPS
248311_AT	AT5G52570	beta-carotene hydroxylase, putative	2,167	2,048

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Tabelle 7-101: Liste von Genen, deren Expression durch flg22- und HrpZ_{P_{sph}}-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	flg22	HrpZ _{P_{sph}}
259518_AT	AT1G20510	4-coumarate--CoA ligase family protein / 4-coumaroyl-CoA synthase family protein	2,074	2,225
260878_AT	AT1G21450	scarecrow-like transcription factor 1 (SCL1)	2,462	3,39
262503_AT	AT1G21670	expressed protein	3,864	2,427
260852_AT	AT1G21900	emp24/gp25L/p24 family protein	2,253	2,288
255967_AT	AT1G22280	protein phosphatase 2C, putative / PP2C, putative	2,51	2,942
261933_AT	AT1G22410	2-dehydro-3-deoxyphosphoheptonate aldolase, putative / 3-deoxy-D-arabino-heptulosonate 7-phosphate syntha	2,778	3,54
264894_AT	AT1G23040	hydroxyproline-rich glycoprotein family protein	2,347	2,186
264893_AT	AT1G23140	C2 domain-containing protein	3,778	4,377
264869_AT	AT1G24350	expressed protein	6,879	2,353
245633_AT	AT1G25280	F-box family protein / tubby family protein	2,15	2,429
255742_AT	AT1G25560	AP2 domain-containing transcription factor, putative	2,202	2,653
261269_AT	AT1G26690	emp24/gp25L/p24 family protein	2,877	3,064
261265_AT	AT1G26800	zinc finger (C3HC4-type RING finger) family protein	3,873	4,664
259598_AT	AT1G27980	pyridoxal-dependent decarboxylase family protein	3,128	2,619
256192_AT	AT1G30110	diadenosine 5',5'''-P1,P4-tetraphosphate hydrolase, putative	17,21	2,863
245772_AT	AT1G30300	expressed protein	2,95	2,208
263222_AT	AT1G30640	protein kinase, putative	3,96	3,935
265161_AT	AT1G30900	vacuolar sorting receptor, putative	6,184	4,73
260651_AT	AT1G32460	expressed protein	2,624	3,096
261711_AT	AT1G32700	zinc-binding family protein	2,576	2,346
262567_AT	AT1G34300	lectin protein kinase family protein	2,236	2,813
259932_AT	AT1G34370	zinc finger (C2H2 type) family protein	2,391	2,361
262408_AT	AT1G34750	protein phosphatase 2C, putative / PP2C, putative	3,527	4,059
259546_AT	AT1G35350	EXS family protein / ERD1/XPR1/SYG1 family protein	2,996	3,7
260943_AT	AT1G45145	thioredoxin H-type 5 (TRX-H-5) (TOUL)	2,021	2,48
265136_AT	AT1G51280	disease resistance protein (TIR class), putative	2,41	2,925
256185_AT	AT1G51700	Dof-type zinc finger domain-containing protein (ADO1)	2,297	2,698
262254_AT	AT1G53920	GDSL-motif lipase/hydrolase family protein	3,702	3,063

262984_AT	AT1G54460	expressed protein	2,351	2,634
265075_AT	AT1G55450	embryo-abundant protein-related	3,457	7,509
246398_AT	AT1G58100	TCP family transcription factor, putative	2,048	2,084
245840_AT	AT1G58420	expressed protein	2,182	3,976
262901_AT	AT1G59910	formin homology 2 domain-containing protein / FH2 domain-containing protein	3,593	6,034
264767_AT	AT1G61380	S-locus protein kinase, putative	6,022	6,189
259690_AT	AT1G63160	replication factor C 40 kDa, putative	2,039	2,183
261556_S_AT	AT1G63390	flavin-containing monooxygenase-related / FMO-related	2,267	2,157
261547_AT	AT1G63500	protein kinase-related	4,249	3,215
264627_AT	AT1G65520	enoyl-CoA hydratase/isomerase family protein	2,895	2,659
256366_AT	AT1G66880	serine/threonine protein kinase family protein	4,418	6,191
245760_S_AT	AT1G66920	serine/threonine protein kinase, putative	4,604	4,085
260345_AT	AT1G69270	leucine-rich repeat family protein / protein kinase family protein	2,825	5,745
256294_AT	AT1G69450	early-responsive to dehydration protein-related / ERD protein-related	2,654	2,642
264338_AT	AT1G70300	potassium transporter, putative	2,786	2,44
260304_AT	AT1G70480	expressed protein	2,149	2,719
260303_AT	AT1G70520	protein kinase family protein	3,293	3,924
262307_AT	AT1G71000	DNAJ heat shock N-terminal domain-containing protein	2,005	3,163
259875_S_AT	AT1G76690	12-oxophytodienoate reductase (OPR2)	2,239	4,799
264951_AT	AT1G76970	VHS domain-containing protein / GAT domain-containing protein	3,456	6,869
259705_AT	AT1G77450	no apical meristem (NAM) family protein	2,388	2,34
259734_AT	AT1G77500	expressed protein	2,012	3,201
259757_AT	AT1G77510	protein disulfide isomerase, putative	2,327	2,107
260301_AT	AT1G80290	glycosyltransferase family protein 47	2	2,434
261901_AT	AT1G80920	DNAJ heat shock N-terminal domain-containing protein	2,328	2,836
265737_AT	AT2G01180	phosphatidic acid phosphatase family protein / PAP2 family protein	3,622	8,601
265733_AT	AT2G01190	octicosapeptide/Phox/Bem1p (PB1) domain-containing protein	2,183	2,094
266348_AT	AT2G01450	mitogen-activated protein kinase, putative / MAPK, putative (MPK17)	3,521	3,734
265872_AT	AT2G01670	MutT/nudix family protein	2,489	3,192
264036_AT	AT2G03810	18S pre-ribosomal assembly protein gar2-related	2,881	2,236
263806_AT	AT2G04305	magnesium transporter CorA-like protein-related	3,095	5,062
265511_AT	AT2G05540	glycine-rich protein	3,856	3,549
263297_AT	AT2G15310	ADP-ribosylation factor, putative	2,11	2,301
265356_AT	AT2G16595	translocon-associated protein (TRAP), putative	5,024	4,856
263583_AT	AT2G17130	isocitrate dehydrogenase subunit 2 / NAD ⁺ isocitrate dehydrogenase subunit 2	2,475	2,538
264851_AT	AT2G17290	calcium-dependent protein kinase isoform 6 (CPK6)	2,273	4,698

264592_AT	AT2G17720	oxidoreductase, 2OG-Fe(II) oxygenase family protein	3,733	3,446
265810_AT	AT2G18090	PHD finger family protein / SWIB complex BAF60b domain-containing protein / GYF domain-containing prot	2,034	2,059
265597_AT	AT2G20145	Toll-Interleukin-Resistance (TIR) domain-containing protein	3,584	5,249
263429_AT	AT2G22250	aminotransferase class I and II family protein	2,068	2,725
264000_AT	AT2G22500	mitochondrial substrate carrier family protein	3,173	5,081
267134_AT	AT2G23450	protein kinase family protein	2,39	3,464
263799_AT	AT2G24550	expressed protein	2,147	3,071
263800_AT	AT2G24600	ankyrin repeat family protein	3,008	7,115
263536_AT	AT2G25000	WRKY family transcription factor	2,515	2,371
265899_S_AT	AT2G25700	E3 ubiquitin ligase SCF complex subunit SKP1/ASK1 (At3), putative	3,642	4,306
266841_AT	AT2G26150	heat shock transcription factor family protein	3,058	4,195
245052_AT	AT2G26440	pectinesterase family protein	2,362	2,518
266316_AT	AT2G27080	harpin-induced protein-related / HIN1-related / harpin-responsive protein-related	2,964	2,671
265276_AT	AT2G28400	expressed protein	8,797	15,52
266782_AT	AT2G29120	glutamate receptor family protein (GLR2.7)	2,904	3,671
266808_AT	AT2G29995	expressed protein	6,653	3,652
266832_AT	AT2G30040	protein kinase family protein	2,211	2,622
267246_AT	AT2G30250	WRKY family transcription factor	2,796	3,22
267209_AT	AT2G30930	expressed protein	2,111	2,394
263478_AT	AT2G31880	leucine-rich repeat transmembrane protein kinase, putative	3,182	3,829
267597_AT	AT2G33020	leucine-rich repeat family protein	11,43	4,819
255844_AT	AT2G33580	protein kinase family protein / peptidoglycan-binding LysM domain-containing protein	2,176	3,652
267461_AT	AT2G33830	dormancy/auxin associated family protein	2,24	4,489
263936_AT	AT2G35920	helicase domain-containing protein	3,26	2,304
263283_AT	AT2G36090	F-box family protein	2,329	2,127
263928_AT	AT2G36330	integral membrane protein, putative	2,058	2,602
265446_AT	AT2G37110	expressed protein	2,012	2,508
267165_AT	AT2G37710	lectin protein kinase, putative	4,436	4,97
267142_AT	AT2G38290	ammonium transporter 2 (AMT2)	2,323	3,015
267034_AT	AT2G38310	expressed protein	2,072	2,292
266977_AT	AT2G39420	esterase/lipase/thioesterase family protein	4,083	2,575
267339_AT	AT2G39870	expressed protein	3,312	3,539
245101_AT	AT2G40890	cytochrome P450 98A3, putative (CYP98A3)	2,235	2,943
267064_AT	AT2G41110	calmodulin-2/3/5 (CAM2) (CAL1)	2,834	3,455
267392_AT	AT2G44490	glycosyl hydrolase family 1 protein	2,261	3,18
267393_AT	AT2G44500	expressed protein	3,468	7,167

245089_AT	AT2G45290	transketolase, putative	4,724	5,115
265450_AT	AT2G46620	AAA-type ATPase family protein	2,751	3,064
259191_AT	AT3G01720	expressed protein	2,104	2,939
259075_AT	AT3G02320	N2,N2-dimethylguanosine tRNA methyltransferase family protein	2,136	2,264
258487_AT	AT3G02550	LOB domain protein 41 / lateral organ boundaries domain protein 41 (LBD41)	2,71	5,591
258623_AT	AT3G02790	zinc finger (C2H2 type) family protein	2,487	2,043
258610_AT	AT3G02875	IAA-amino acid hydrolase 1 (ILR1)	2,847	3,305
258616_AT	AT3G02880	leucine-rich repeat transmembrane protein kinase, putative	4,252	4,554
258608_AT	AT3G03020	expressed protein	2,052	3,189
258803_AT	AT3G04670	WRKY family transcription factor	2,418	3,534
259325_AT	AT3G05320	expressed protein	4,43	4,195
259109_AT	AT3G05580	serine/threonine protein phosphatase, putative	2,336	3,755
258908_AT	AT3G06350	dehydroquininate dehydratase, putative / shikimate dehydrogenase, putative	2,997	2,854
258551_AT	AT3G06890	expressed protein	2,196	3,947
257535_AT	AT3G09490	chloroplast lumen common family protein	2,797	3,308
258650_AT	AT3G09830	protein kinase, putative	2,267	4,23
258915_AT	AT3G10640	SNF7 family protein	2,2	3,895
256433_AT	AT3G10980	expressed protein	2,708	6,037
256431_S_AT	AT3G11010	disease resistance family protein / LRR family protein	2,209	2,048
257662_AT	AT3G13320	calcium exchanger (CAX2)	2,003	2,393
256981_AT	AT3G13380	leucine-rich repeat family protein / protein kinase family protein	2,809	2,99
257053_AT	AT3G15210	ethylene-responsive element-binding factor 4 (ERF4)	2,13	2,113
258225_AT	AT3G15630	expressed protein	2,155	4,637
259378_AT	AT3G16310	mitotic phosphoprotein N' end (MPPN) family protein	2,437	2,482
258436_AT	AT3G16720	zinc finger (C3HC4-type RING finger) family protein	2,524	3,37
257037_AT	AT3G19130	RNA-binding protein, putative	2,179	2,866
257939_AT	AT3G19930	sugar transport protein (STP4)	4,024	2,91
258452_AT	AT3G22370	alternative oxidase 1a, mitochondrial (AOX1A)	2,117	3,116
258316_AT	AT3G22660	rRNA processing protein-related	2,228	2,329
258133_AT	AT3G24500	ethylene-responsive transcriptional coactivator, putative	2,181	3,564
257623_AT	AT3G26210	cytochrome P450 71B23, putative (CYP71B23)	11,77	14,09
258245_AT	AT3G29075	glycine-rich protein	2,158	2,272
265941_S_AT	AT3G32920	recA family protein	2,841	2,517
252684_AT	AT3G44400	disease resistance protein (TIR-NBS-LRR class), putative	2,031	3,962
252572_AT	AT3G45290	seven transmembrane MLO family protein / MLO-like protein 3 (MLO3)	7,709	8,505
252533_AT	AT3G46110	expressed protein	4,41	4,836

252474_AT	AT3G46620	zinc finger (C3HC4-type RING finger) family protein	4,173	5,476
252324_AT	AT3G48565	'protein translocation complex sec61 gamma chain-like protein protein translocation complex sec61 gamma ch	5,109	3,042
252328_AT	AT3G48570	protein transport protein SEC61 gamma subunit, putative	4,4	3,327
252173_AT	AT3G50650	scarecrow-like transcription factor 7 (SCL7)	2,468	3,026
252183_AT	AT3G50740	UDP-glucuronosyl/UDP-glucosyl transferase family protein	5,318	2,141
252068_AT	AT3G51440	strictosidine synthase family protein	4,235	6,122
256677_AT	AT3G52190	transducin family protein / WD-40 repeat family protein	5,536	3,942
252009_AT	AT3G52800	zinc finger (AN1-like) family protein	2,414	3,181
251973_AT	AT3G53180	glutamine synthetase, putative	4,721	4
251922_AT	AT3G54030	protein kinase family protein	3,416	4,434
251901_AT	AT3G54100	expressed protein	3,355	3,91
251839_AT	AT3G54950	patatin-related	2,735	3,393
251840_AT	AT3G54960	thioredoxin family protein	2,841	2,388
251841_AT	AT3G54980	pentatricopeptide (PPR) repeat-containing protein	2,352	2,217
251763_AT	AT3G55730	myb family transcription factor (MYB109)	2,373	2,959
251752_AT	AT3G55740	proline transporter 2 (ProT2)	4,078	3,081
251739_AT	AT3G56170	Ca(2+)-dependent nuclease	3,391	3,031
246289_AT	AT3G56880	VQ motif-containing protein	3,655	4,596
251634_AT	AT3G57480	zinc finger (C2H2 type, AN1-like) family protein	2,01	3,43
251621_AT	AT3G57700	protein kinase, putative	4,241	6,139
251603_AT	AT3G57760	protein kinase family protein	3,096	2,211
251563_AT	AT3G57880	C2 domain-containing protein	2,761	4,057
251584_AT	AT3G58620	tetratricopeptide repeat (TPR)-containing protein	7,567	4,082
251470_AT	AT3G59560	'putative protein hypothetical protein At2g43490 - Arabidopsis thaliana, EMBL:AAB64317'	3,703	3,047
251474_AT	AT3G59630	diphthamide synthesis DPH2 family protein	2,067	3,585
251342_AT	AT3G60690	auxin-responsive family protein	2,111	3,803
251182_AT	AT3G62600	DNAJ heat shock family protein	2,299	2,271
251206_AT	AT3G63090	expressed protein	2,41	2,243
255627_AT	AT4G00955	expressed protein	3,725	3,611
255547_AT	AT4G01920	DC1 domain-containing protein	2,51	2,166
255511_AT	AT4G02075	zinc finger (C3HC4-type RING finger) family protein	3,819	3,6
255524_AT	AT4G02330	pectinesterase family protein	3,791	3,854
255309_AT	AT4G04920	expressed protein	2,739	2,022
255261_S_AT	AT4G05110	equilibrative nucleoside transporter, putative (ENT6)	7,305	4,244
255116_AT	AT4G08850	leucine-rich repeat family protein / protein kinase family protein	5,466	5,725
255059_AT	AT4G09420	disease resistance protein (TIR-NBS class), putative	7,215	5,48

255037_AT	AT4G09460	myb family transcription factor	2,374	2,24
254924_AT	AT4G11330	mitogen-activated protein kinase, putative / MAPK, putative (MPK5)	2,594	5,3
254851_AT	AT4G12010	disease resistance protein (TIR-NBS-LRR class), putative	2,084	2,581
254858_AT	AT4G12070	expressed protein	3,288	2,986
254839_AT	AT4G12400	stress-inducible protein, putative	4,037	7,863
254723_AT	AT4G13510	ammonium transporter 1, member 1 (AMT1.1)	2,545	2,976
245329_AT	AT4G14365	zinc finger (C3HC4-type RING finger) family protein / ankyrin repeat family protein	4,13	8,624
245252_AT	AT4G17500	ethylene-responsive element-binding protein 1 (ERF1) / EREBP-2 protein	2,744	6,618
245401_AT	AT4G17670	senescence-associated protein-related	4,282	2,345
254694_AT	AT4G17900	zinc-binding family protein	2,149	3,513
254706_AT	AT4G17950	DNA-binding family protein	2,65	2,814
254707_AT	AT4G18010	inositol polyphosphate 5-phosphatase II (IP5PII)	2,133	2,829
254641_AT	AT4G18800	Ras-related GTP-binding protein, putative	2,163	3,045
254592_AT	AT4G18880	heat shock transcription factor 21 (HSF21)	2,933	5,129
254500_AT	AT4G20110	vacuolar sorting receptor, putative	4,412	6,605
254416_AT	AT4G21380	S-locus protein kinase, putative (ARK3)	2,302	2,703
254384_AT	AT4G21870	26.5 kDa class P-related heat shock protein (HSP26.5-P)	3,266	3,202
254276_AT	AT4G22820	zinc finger (AN1-like) family protein	2,153	2,682
254291_AT	AT4G23010	UDP-galactose transporter-related	3,237	4,68
254266_AT	AT4G23130	receptor-like protein kinase 6 (RLK6)	2,524	2,026
254243_AT	AT4G23210	protein kinase family protein	9,383	8,651
254255_AT	AT4G23220	protein kinase family protein	4,595	6,194
254247_AT	AT4G23260	protein kinase family protein	5,757	5,012
254248_AT	AT4G23270	protein kinase family protein	3,134	3,333
254251_AT	AT4G23300	protein kinase family protein	5,606	3,336
254231_AT	AT4G23810	WRKY family transcription factor	5,292	10,02
254197_AT	AT4G24040	glycosyl hydrolase family protein 37 / trehalase, putative	4,412	4,204
254120_AT	AT4G24570	mitochondrial substrate carrier family protein	5,787	12,29
254050_S_AT	AT4G25670	expressed protein	2,275	2,454
254027_AT	AT4G25835	AAA-type ATPase family protein	3,278	2,517
253992_AT	AT4G26060	expressed protein	3,888	3,986
253868_AT	AT4G27500	expressed protein	2,05	2,323
253843_AT	AT4G27910	PHD finger protein-related / SET domain-containing protein (TX4)	2,747	2,408
253659_AT	AT4G30150	expressed protein	2,097	2,007
253609_AT	AT4G30190	ATPase 2, plasma membrane-type, putative / proton pump 2, putative / proton-exporting ATPase, putative	4	3,602
253614_AT	AT4G30350	heat shock protein-related	2,25	3,334

253625_AT	AT4G30600	signal recognition particle receptor alpha subunit family protein	2,035	2,481
253535_AT	AT4G31550	WRKY family transcription factor	6,805	5,405
253506_AT	AT4G31980	expressed protein	2,73	2,341
253466_AT	AT4G32040	homeobox protein knotted-1 like 5 (KNAT5) / homeodomain containing protein 1 (H1)	2,08	2,21
253476_AT	AT4G32300	lectin protein kinase family protein	2,209	2,848
253321_AT	AT4G33910	oxidoreductase, 2OG-Fe(II) oxygenase family protein	2,094	3,491
253292_AT	AT4G33985	expressed protein	4,084	4,214
253276_AT	AT4G34050	caffeoyl-CoA 3-O-methyltransferase, putative	2,032	2,318
253282_AT	AT4G34120	CBS domain-containing protein	2,031	2,143
253284_AT	AT4G34150	C2 domain-containing protein	2,548	5,502
253257_AT	AT4G34390	extra-large guanine nucleotide binding protein, putative / G-protein, putative	2,769	5,31
253147_AT	AT4G35600	protein kinase family protein	5,969	7,769
253088_AT	AT4G36220	cytochrome P450 84A1 (CYP84A1) / ferulate-5-hydroxylase (FAH1)	2,879	2,942
253066_AT	AT4G37770	1-aminocyclopropane-1-carboxylate synthase, putative / ACC synthase, putative	3,874	2,53
253038_AT	AT4G37790	homeobox-leucine zipper protein 22 (HAT22) / HD-ZIP protein 22	3,287	2,079
252981_AT	AT4G38260	expressed protein	2,024	2,287
252976_S_AT	AT4G38550	expressed protein	2,844	5,17
252958_AT	AT4G38620	myb family transcription factor (MYB4)	2,211	3,158
252859_AT	AT4G39780	AP2 domain-containing transcription factor, putative	3,239	2,436
251144_AT	AT5G01210	transferase family protein	2,52	2,369
250984_AT	AT5G02800	protein kinase family protein	2,4	2,378
250934_AT	AT5G03030	DNAJ heat shock N-terminal domain-containing protein	2,288	2,916
250911_AT	AT5G03730	serine/threonine protein kinase (CTR1)	2,545	2,941
246955_AT	AT5G04870	calcium-dependent protein kinase isoform AK1 (AK1)	2,101	3,516
250809_AT	AT5G05140	transcription elongation factor-related	3,071	4,268
250822_AT	AT5G05230	expressed protein	2,097	2,094
250781_AT	AT5G05410	DRE-binding protein (DREB2A)	4,194	4,577
250676_AT	AT5G06320	harpin-induced family protein / HIN1 family protein / harpin-responsive family protein / NDR1/HIN1-like prot	2,466	4,434
250679_AT	AT5G06550	transcription factor jumonji (jmjC) domain-containing protein	2,485	2,254
250655_AT	AT5G06960	bZIP family transcription factor (OBF5)	2,491	2,631
250477_AT	AT5G10190	transporter-related	2,033	2,334
246018_AT	AT5G10695	expressed protein	3,479	4,93
250400_AT	AT5G10740	protein phosphatase 2C-related / PP2C-related	2,795	2,278
245905_AT	AT5G11090	serine-rich protein-related	4,074	2,919
250309_AT	AT5G12220	las1-like family protein	2,12	2,022
250147_AT	AT5G14600	expressed protein	2,016	2,065

246600_AT	AT5G14930	leaf senescence-associated protein (SAG101)	2,102	3,683
250114_S_AT	AT5G16340	AMP-binding protein, putative	2,023	2,047
250028_AT	AT5G18130	expressed protein	2,33	2,135
249988_AT	AT5G18310	expressed protein	4,696	3,427
249974_AT	AT5G18780	F-box family protein	2,013	2,238
246125_AT	AT5G19875	expressed protein	2,492	2,172
246189_AT	AT5G20910	zinc finger (C3HC4-type RING finger) family protein	2,551	3,055
249888_S_AT	AT5G22480	zinc finger (ZPR1-type) family protein	2,021	2,255
249895_AT	AT5G22500	acyl CoA reductase, putative / male-sterility protein, putative	2,805	2,024
249822_AT	AT5G23710	expressed protein	2,239	2,477
249765_AT	AT5G24030	C4-dicarboxylate transporter/malic acid transport family protein	3,737	3,151
246943_AT	AT5G25440	protein kinase family protein	7,144	7,012
246831_AT	AT5G26340	hexose transporter, putative	3,682	4,451
246789_AT	AT5G27600	AMP-binding protein, putative	2,011	2,304
245925_AT	AT5G28770	bZIP transcription factor family protein	4,647	3,188
249626_AT	AT5G37540	aspartyl protease family protein	8,954	4,678
249581_AT	AT5G37600	glutamine synthetase, putative	4,145	4,447
249580_AT	AT5G37740	C2 domain-containing protein	5,353	4,437
249485_AT	AT5G39020	protein kinase family protein	3,922	6,037
249374_AT	AT5G40580	20S proteasome beta subunit B (PBB2) (PRCFC)	2,061	2,006
249346_AT	AT5G40780	lysine and histidine specific transporter, putative	5,137	5,053
249239_AT	AT5G41990	protein kinase family protein	2,649	2,223
249233_AT	AT5G42150	expressed protein	2,052	2,309
249174_AT	AT5G42900	expressed protein	6,172	6,222
249187_AT	AT5G43060	cysteine proteinase, putative / thiol protease, putative	2,604	2,134
249139_AT	AT5G43170	zinc finger (C2H2 type) protein 3 (AZF3)	3,299	2,348
249125_AT	AT5G43450	2-oxoglutarate-dependent dioxygenase, putative	5,445	5,106
249078_AT	AT5G44070	phytochelatin synthase 1 (PCS1)	2,175	4,333
249087_AT	AT5G44210	ERF domain protein 9 (ERF9)	6,247	2,771
249050_AT	AT5G44290	protein kinase family protein	3,103	3,038
249044_AT	AT5G44370	transporter-related	3,71	2,696
254521_AT	AT5G44810	putative protein similar to unknown protein (gb AAC79139.1)	2,856	3,653
249021_AT	AT5G44820	expressed protein	2,092	2,422
248983_AT	AT5G45130	Ras-related protein (RHA1) / small GTP-binding protein	2,412	2,483
248970_AT	AT5G45380	sodium	5,167	3,481
248895_AT	AT5G46330	leucine-rich repeat transmembrane protein kinase, putative	2,387	2,45

248901_AT	AT5G46410	NLI interacting factor (NIF) family protein	3,153	3,542
248827_AT	AT5G47100	calcineurin B-like protein 9 (CBL9)	3,117	2,385
248833_AT	AT5G47120	Bax inhibitor-1 putative / BI-1 putative	2,781	2,383
248829_AT	AT5G47130	Bax inhibitor-1 family / BI-1 family	7,762	4,627
248781_AT	AT5G47870	expressed protein	2,532	2,812
248749_AT	AT5G47880	eukaryotic peptide chain release factor subunit 1-1 (ERF1-1)	2,272	2,547
248698_AT	AT5G48380	leucine-rich repeat family protein / protein kinase family protein	2,338	3,886
248710_AT	AT5G48480	expressed protein	2,375	2,582
248639_AT	AT5G48930	transferase family protein	2,008	2,336
248497_AT	AT5G50380	exocyst subunit EXO70 family protein	2,291	2,514
248327_AT	AT5G52750	heavy-metal-associated domain-containing protein	2,201	6,303
248330_AT	AT5G52810	ornithine cyclodeaminase/mu-crystallin family protein	2,775	2,326
248226_AT	AT5G53750	expressed protein	3,385	2,304
248006_AT	AT5G56250	expressed protein	2,315	3,23
247933_AT	AT5G56980	expressed protein	3,203	2,246
247925_AT	AT5G57560	xyloglucan	2,013	5,057
247850_AT	AT5G58150	leucine-rich repeat transmembrane protein kinase, putative	2,704	2,116
247793_AT	AT5G58650	expressed protein	7,987	2,648
247611_AT	AT5G60710	zinc finger (C3HC4-type RING finger) family protein	2,164	2,374
247554_AT	AT5G61010	exocyst subunit EXO70 family protein	2,684	3,852
247543_AT	AT5G61600	ethylene-responsive element-binding family protein	2,3	2,829
247491_AT	AT5G61880	signaling molecule-related	2,022	2,606
247426_AT	AT5G62570	calmodulin-binding protein	2,956	4,476
247322_AT	AT5G64090	expressed protein	2,092	2,741
247284_AT	AT5G64410	oligopeptide transporter OPT family protein	3,798	2,023
247199_AT	AT5G65210	bZIP family transcription factor (TGA1)	2,026	2,341
247202_AT	AT5G65270	Ras-related GTP-binding family protein	3,241	2,218
247086_AT	AT5G66320	zinc finger (GATA type) family protein	2,779	2,227

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-102: Liste von Genen, deren Expression durch flg22- und NLP_{pp}-Behandlung nach 4 h in *A. thaliana*-Pflanzen induziert wird.
Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sp}h}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	flg22	NLP _{pp}
262912_AT	AT1G59740	proton-dependent oligopeptide transport (POT) family protein	2,692	2,214
250930_AT	AT5G03160	DNAJ heat shock N-terminal domain-containing protein	2,153	2,351
249628_AT	AT5G37580	tropomyosin-related	2,133	3,049
248787_AT	AT5G47420	expressed protein	2,059	2,339

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-103: Liste von Genen, deren Expression durch HrpZ_{P_{sph}}- und NLP_{P_p}-Behandlung nach 4 h in *A. thaliana*-Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sph}}, NLP_{P_p} und LPS).

Datensatz ID	AGI	Beschreibung	HrpZ _{P_{sph}}	NLP _{P_p}
261027_AT	AT1G01340	cyclic nucleotide-regulated ion channel (CNGC10) (ACBK1)	6,197	3,501
260904_AT	AT1G02450	NPR1/NIM1-interacting protein 1 (NIMIN-1)	2,924	3,063
265194_AT	AT1G05010	1-aminocyclopropane-1-carboxylate oxidase / ACC oxidase / ethylene-forming enzyme (ACO) (EAT1)	3,405	2,086
261756_AT	AT1G08320	bZIP family transcription factor	2,933	2,11
264669_AT	AT1G09630	Ras-related GTP-binding protein, putative	2,875	2,618
263261_AT	AT1G10580	transducin family protein / WD-40 repeat family protein	2,481	2,086
262762_AT	AT1G10700	ribose-phosphate pyrophosphokinase 3 / phosphoribosyl diphosphate synthetase 3 (PRS3)	4,264	4,949
262457_AT	AT1G11200	expressed protein	3,4	2,276
255923_AT	AT1G22180	SEC14 cytosolic factor family protein / phosphoglyceride transfer family protein	5,864	3,517
263032_AT	AT1G23850	expressed protein	3,154	3,207
245662_AT	AT1G28190	expressed protein	6,078	3,916
262744_AT	AT1G28680	transferase family protein	3,396	2,735
246312_AT	AT1G31930	extra-large guanine nucleotide binding protein, putative / G-protein, putative	3,427	3,505
245765_AT	AT1G33600	leucine-rich repeat family protein	2,614	2,453
260116_AT	AT1G33960	avirulence-responsive protein / avirulence induced gene (AIG1)	4,436	7,852
259550_AT	AT1G35230	arabinogalactan-protein (AGP5)	11,34	3,289
262038_AT	AT1G35580	beta-fructofuranosidase, putative / invertase, putative / saccharase, putative / beta-fructosidase, putative	3,006	2,114
262026_AT	AT1G35670	calcium-dependent protein kinase 2 (CDPK2)	3,405	2,861
260506_AT	AT1G47210	cyclin family protein	2,541	2,605
246376_AT	AT1G51950	auxin-responsive protein / indoleacetic acid-induced protein 18 (IAA18)	2,048	2,019
263153_S_AT	AT1G54010	myrosinase-associated protein, putative	4,518	7,117
259655_AT	AT1G55210	disease resistance response	4,625	4,384
260635_AT	AT1G62420	expressed protein	3,409	2,535
262344_AT	AT1G64060	respiratory burst oxidase protein F (RbohF) (RbohAp108) / NADPH oxidase	2,956	2,125
261951_AT	AT1G64490	expressed protein	2,041	2,122
261973_AT	AT1G64610	WD-40 repeat family protein	5,378	3,572
263108_AT	AT1G65240	aspartyl protease family protein	5,281	3,392
256356_S_AT	AT1G66500	zinc finger (C2H2-type) family protein	2,845	2,164

256380_AT	AT1G66680	S locus-linked protein, putative	2,056	2,067
264223_S_AT	AT1G67520	lectin protein kinase family protein	4,014	2,44
260418_S_AT	AT1G69750	cox19 family protein	2,461	2,355
260417_AT	AT1G69770	chromomethylase 3 (CMT3)	2,314	2,448
259749_AT	AT1G71100	ribose 5-phosphate isomerase-related	3,473	2,348
260046_AT	AT1G73800	calmodulin-binding protein	3,156	2,476
260068_AT	AT1G73805	calmodulin-binding protein	3,967	2,924
260387_AT	AT1G74100	sulfotransferase family protein	2,188	2,325
262177_AT	AT1G74710	isochorismate synthase 1 (ICS1) / isochorismate mutase	7,902	5,919
256451_S_AT	AT1G75170	SEC14 cytosolic factor family protein / phosphoglyceride transfer family protein	3,631	4,888
262188_AT	AT1G77810	galactosyltransferase family protein	2,339	2,398
264279_S_AT	AT1G78820	curculin-like (mannose-binding) lectin family protein / PAN domain-containing protein	2,898	2,1
264299_S_AT	AT1G78860	curculin-like (mannose-binding) lectin family protein	3,379	2,863
262204_AT	AT2G01100	expressed protein	2,002	4,232
266182_AT	AT2G02370	expressed protein	4,392	3,571
266746_S_AT	AT2G02930	glutathione S-transferase, putative	6,244	4,831
263807_AT	AT2G04400	indole-3-glycerol phosphate synthase (IGPS)	2,675	3,553
257444_AT	AT2G12550	ubiquitin-associated (UBA)/TS-N domain-containing protein	2,377	2,111
263517_AT	AT2G21620	universal stress protein (USP) family protein / responsive to dessication protein (RD2)	2,472	2,124
263428_AT	AT2G22310	ubiquitin-specific protease 4 (UBP4)	2,919	2,251
264003_AT	AT2G22475	GRAM domain-containing protein / ABA-responsive protein-related	3,447	2,435
267288_AT	AT2G23680	stress-responsive protein, putative	4,207	2,649
266000_AT	AT2G24180	cytochrome P450 family protein	3,774	6,475
266615_S_AT	AT2G29720	monooxygenase family protein	4,546	6,629
266835_AT	AT2G29990	pyridine nucleotide-disulphide oxidoreductase family protein	4,098	2,428
267518_AT	AT2G30500	kinase interacting family protein	2,213	2,297
267496_AT	AT2G30550	lipase class 3 family protein	3,015	3,007
264059_AT	AT2G31305	expressed protein	2,367	2,012
263472_AT	AT2G31950	molybdopterin synthase (CNX2) ;supported by full-length cDNA: Ceres:33192.	2,63	2,072
266360_AT	AT2G32250	far-red impaired responsive protein, putative	3,232	2,741
245167_S_AT	AT2G33120	synaptobrevin-related protein / vesicle-associated membrane protein 722 (VAMP722) (SAR1)	3,059	2,136
263922_S_AT	AT2G36580	pyruvate kinase, putative	2,187	2,272
266097_AT	AT2G37970	SOUL heme-binding family protein	2,353	2,311
266167_AT	AT2G38860	proteaseI (pfpI)-like protein (YLS5)	5,847	5,392
266962_AT	AT2G39440	expressed protein	2,854	2,016
256328_AT	AT3G02360	6-phosphogluconate dehydrogenase family protein	3,37	2,716

258577_AT	AT3G04220	disease resistance protein (TIR-NBS-LRR class), putative	2,18	2,645
258791_AT	AT3G04720	hevein-like protein (HEL)	3,863	4,798
258744_AT	AT3G05830	expressed protein	2,95	2,62
259224_AT	AT3G07800	thymidine kinase, putative	3,121	2,356
259216_AT	AT3G09000	proline-rich family protein	2,982	2,354
258921_AT	AT3G10500	no apical meristem (NAM) family protein	3,411	2,696
257700_AT	AT3G12740	LEM3 (ligand-effect modulator 3) family protein / CDC50 family protein	4,105	2,631
256600_AT	AT3G14850	expressed protein	2,781	2,275
258275_AT	AT3G15760	expressed protein	3,202	2,816
258331_AT	AT3G15980	coatamer protein complex, subunit beta 2 (beta prime), putative	2,35	2,622
257295_AT	AT3G17420	protein kinase family protein	3,564	3,881
256948_AT	AT3G18920	unknown protein	2,655	2,173
257038_AT	AT3G19260	longevity-assurance (LAG1) family protein	6,374	3,86
257088_AT	AT3G20510	expressed protein	3,304	2,946
258047_AT	AT3G21240	4-coumarate--CoA ligase 2 / 4-coumaroyl-CoA synthase 2 (4CL2)	2,379	2,721
258176_AT	AT3G21650	serine/threonine protein phosphatase 2A (PP2A) regulatory subunit B', putative	2,731	2,203
258140_AT	AT3G24503	aldehyde dehydrogenase (ALDH1a)	2,196	2,592
257840_AT	AT3G25250	protein kinase family protein	2,367	2,501
258084_AT	AT3G26020	serine/threonine protein phosphatase 2A (PP2A) regulatory subunit B', putative	3,011	2,3
257828_AT	AT3G26670	expressed protein	2,748	2,053
258282_AT	AT3G26910	hydroxyproline-rich glycoprotein family protein	7,277	3,9
257784_AT	AT3G26970	'geranylgeranylated protein, putative similar to ATGP4 GB:AAD00115 from [Arabidopsis thaliana]'	3,357	3,937
257785_AT	AT3G26980	ubiquitin family protein	3,696	3,689
257902_AT	AT3G28450	leucine-rich repeat transmembrane protein kinase, putative	2,778	2,041
258002_AT	AT3G28930	avrRpt2-induced AIG2 protein (AIG2)	2,068	3,01
252422_AT	AT3G47550	zinc finger (C3HC4-type RING finger) family protein	2,373	2,436
252383_AT	AT3G47780	ABC transporter family protein	4,445	2,222
252134_AT	AT3G50910	expressed protein	2,881	2,111
252123_AT	AT3G51240	naringenin 3-dioxygenase / flavanone 3-hydroxylase (F3H)	2,457	2,036
252037_AT	AT3G51920	calmodulin-9 (CAM9)	3,347	2,027
251846_AT	AT3G54560	histone H2A.F/Z	2,218	3,391
251861_AT	AT3G54810	zinc finger (GATA type) family protein	3,541	2,576
246293_AT	AT3G56710	sigA-binding protein	2,797	2,22
251429_AT	AT3G60190	dynammin-like protein E (DL1E)	2,905	3,844
251406_AT	AT3G60260	phagocytosis and cell motility protein ELMO1-related	3,617	3,472
255553_AT	AT4G01960	expressed protein	3,516	2,85

255462_AT	AT4G02940	oxidoreductase, 2OG-Fe(II) oxygenase family protein	2,592	4,049
255301_AT	AT4G04800	methionine sulfoxide reductase domain-containing protein / SeIR domain-containing protein	2,044	2,136
255259_AT	AT4G05020	NADH dehydrogenase-related	3,067	2,727
254952_AT	AT4G10960	UDP-glucose 4-epimerase, putative / UDP-galactose 4-epimerase, putative / Galactowaldenase, putative	3,831	2,444
254922_AT	AT4G11370	zinc finger (C3HC4-type RING finger) family protein	3,628	5,6
254847_AT	AT4G11850	phospholipase D gamma 1 / PLD gamma 1 (PLDGAMMA1)	3,232	2,54
254843_AT	AT4G11860	expressed protein	2,252	2,698
245599_AT	AT4G14220	zinc finger (C3HC4-type RING finger) family protein	3,138	2,301
245528_AT	AT4G15530	pyruvate phosphate dikinase family protein	2,429	2,109
245249_AT	AT4G16760	acyl-CoA oxidase (ACX1)	2,452	2,178
254190_AT	AT4G23885	expressed protein	2,838	2,025
254169_AT	AT4G24290	expressed protein	3,517	2,144
254167_AT	AT4G24400	CBL-interacting protein kinase 8 (CIPK8)	3,501	2,353
254040_AT	AT4G25900	aldose 1-epimerase family protein	5,337	4,048
253950_AT	AT4G26910	2-oxoacid dehydrogenase family protein	3,059	2,308
253654_AT	AT4G30060	expressed protein	3,811	2,473
253534_AT	AT4G31500	cytochrome P450 83B1 (CYP83B1)	2,971	2,318
252921_AT	AT4G39030	enhanced disease susceptibility 5 (EDS5) / salicylic acid induction deficient 1 (SID1)	4,888	4,656
252827_AT	AT4G39950	cytochrome P450 79B2, putative (CYP79B2)	3,085	4,569
251104_AT	AT5G01720	F-box family protein (FBL3)	3,99	2,042
250986_AT	AT5G02850	hydroxyproline-rich glycoprotein family protein	2,078	2,035
250818_AT	AT5G04930	phospholipid-transporting ATPase 1 / aminophospholipid flippase 1 / magnesium-ATPase 1 (ALA1)	3,931	2,799
250788_AT	AT5G05570	transducin family protein / WD-40 repeat family protein	2,193	2,29
250745_AT	AT5G05850	leucine-rich repeat family protein	3,397	2,023
250692_AT	AT5G06560	expressed protein	2,354	2,063
250626_AT	AT5G07350	tudor domain-containing protein / nuclease family protein	2,051	2,005
246009_AT	AT5G08335	isoprenylcysteine carboxyl methyltransferase family protein / ICMT family protein	2,458	2,13
250279_AT	AT5G13200	GRAM domain-containing protein / ABA-responsive protein-related	4,718	2,524
246511_AT	AT5G15490	UDP-glucose 6-dehydrogenase, putative	2,378	2,01
250094_AT	AT5G17380	pyruvate decarboxylase family protein	2,478	2,12
250015_AT	AT5G18070	phosphoglucosamine mutase-related	2,677	2,037
249983_AT	AT5G18470	curculin-like (mannose-binding) lectin family protein	8,603	2,688
246184_AT	AT5G20950	glycosyl hydrolase family 3 protein	3,304	2,565
249942_AT	AT5G22300	nitrilase 4 (NIT4)	2,151	2,911
249889_AT	AT5G22540	expressed protein	2,605	2,166
249777_AT	AT5G24210	lipase class 3 family protein	2,49	2,65

246653_AT	AT5G35200	epsin N-terminal homology (ENTH) domain-containing protein	2,675	2,413
249625_AT	AT5G37480	expressed protein	2,415	2,051
249494_AT	AT5G39050	transferase family protein	3,554	2,632
249471_AT	AT5G39360	circadian clock coupling factor-related	3,018	2,072
249372_AT	AT5G40760	glucose-6-phosphate 1-dehydrogenase / G6PD (ACG12)	2,885	2,009
248799_AT	AT5G47230	ethylene-responsive element-binding factor 5 (ERF5)	6,765	3,117
248769_AT	AT5G47730	SEC14 cytosolic factor, putative / polyphosphoinositide-binding protein, putative	4,435	3,569
248719_AT	AT5G47910	respiratory burst oxidase protein D (RbohD) / NADPH oxidase	3,598	2,422
248701_AT	AT5G48410	glutamate receptor family protein (GLR1.3)	12,6	14,34
248129_AT	AT5G54780	RabGAP/TBC domain-containing protein	4,013	4,283
248132_AT	AT5G54840	GTP-binding family protein	2,14	2,002
247940_AT	AT5G57190	phosphatidylserine decarboxylase, putative	11,13	6,214
247864_S_AT	AT5G57890	anthranilate synthase beta subunit, putative	3,682	3,781
247811_AT	AT5G58430	exocyst subunit EXO70 family protein	3,864	2,799
247509_AT	AT5G62020	heat shock factor protein, putative (HSF6) / heat shock transcription factor, putative (HTSF6)	2,018	2,052
247389_AT	AT5G63490	CBS domain-containing protein / octicosapeptide/Phox/Bemp1 (PB1) domain-containing protein	2,642	2,215
247351_AT	AT5G63790	no apical meristem (NAM) family protein	2,867	2,322
247302_AT	AT5G63880	SNF7 family protein	2,474	2,145

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Tabelle 7-104: Liste von Genen, deren Expression durch NLP_{pp}- und LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.
Microarray -Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sp}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	NLP _{pp}	LPS
264574_AT	AT1G05300	metal transporter, putative (ZIP5)	3,991	2,918
256181_AT	AT1G51820	leucine-rich repeat protein kinase, putative	6,548	4,476
246366_AT	AT1G51850	leucine-rich repeat protein kinase, putative	2,862	9,867
258606_AT	AT3G02840	immediate-early fungal elicitor family protein	8,582	2,119
258203_AT	AT3G13950	expressed protein	12,21	2,336
252303_AT	AT3G49210	expressed protein	5,325	2,211
248298_AT	AT5G53110	expressed protein	4,53	2,495
247215_AT	AT5G64905	expressed protein	68,77	4,528

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Tabelle 7-105: Liste von Genen, deren Expression durch Pep13-, flg22- und HrpZ_{P_{sph}}-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sph}}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	flg22	HrpZ _{P_{sph}}
259445_AT	AT1G02400	gibberellin 2-oxidase, putative / GA2-oxidase, putative	2,812	6,052	7,091
264663_AT	AT1G09970	leucine-rich repeat transmembrane protein kinase, putative	2,16	3,699	4,033
263210_AT	AT1G10585	expressed protein	4,888	3,506	3,394
262456_AT	AT1G11260	glucose transporter (STP1)	2,021	8,881	5,214
261443_AT	AT1G28480	glutaredoxin family protein	2,493	2,605	3,133
261335_AT	AT1G44800	nodulin MtN21 family protein	2,155	2,309	2,762
266294_AT	AT2G29500	17.6 kDa class I small heat shock protein (HSP17.6B-CI)	2,685	2,873	4,816
255872_AT	AT2G30360	CBL-interacting protein kinase 11 (CIPK11)	2,957	4,059	4,037
265471_AT	AT2G37130	peroxidase 21 (PER21) (P21) (PRXR5)	2,02	2,775	2,062
266168_AT	AT2G38870	protease inhibitor, putative	2,572	6,29	6,411
267008_AT	AT2G39350	ABC transporter family protein	4,22	7,599	3,483
260556_AT	AT2G43620	chitinase, putative	2,723	5,102	5,614
266486_AT	AT2G47950	expressed protein	9,518	5,064	8,112
258805_AT	AT3G04010	glycosyl hydrolase family 17 protein	2,4	2,361	3,521
258792_AT	AT3G04640	glycine-rich protein	2,28	2,482	4,325
257644_AT	AT3G25780	allene oxide cyclase, putative / early-responsive to dehydration protein, putative / ERD protein, pu	4,005	4,101	6,177
252740_AT	AT3G43270	pectinesterase family protein	3,662	6,379	3,454
252214_AT	AT3G50260	AP2 domain-containing transcription factor, putative	2,256	6,429	7,457
251804_AT	AT3G55430	glycosyl hydrolase family 17 protein / beta-1,3-glucanase, putative	2,614	2,577	3,635
251336_AT	AT3G61190	BON1-associated protein 1 (BAP1)	2,066	8,707	23,9
255129_AT	AT4G08290	nodulin MtN21 family protein	2,804	2,946	3,267
254818_AT	AT4G12470	protease inhibitor/seed storage/lipid transfer protein (LTP) family protein	2,089	6,449	5,545
254158_AT	AT4G24380	expressed protein	2,448	2,31	2,869
253872_AT	AT4G27410	no apical meristem (NAM) family protein (RD26)	2,363	4,428	6,512
253799_AT	AT4G28140	AP2 domain-containing transcription factor, putative	3,652	2,522	2,86
253814_AT	AT4G28290	expressed protein	2,289	2,932	2,569
253277_AT	AT4G34230	cinnamyl-alcohol dehydrogenase, putative	2,957	4,294	4,689
253140_AT	AT4G35480	zinc finger (C3HC4-type RING finger) family protein	2,473	5,18	4,615

245711_AT	AT5G04340	zinc finger (C2H2 type) family protein	2,423	8,989	12,59
250777_AT	AT5G05440	expressed protein	2,797	3,809	4,157
250296_AT	AT5G12020	17.6 kDa class II heat shock protein (HSP17.6-CII)	2,389	2,844	4,258
246463_AT	AT5G16970	NADP-dependent oxidoreductase, putative (P1)	2,048	2,907	2,124
246944_AT	AT5G25450	ubiquinol-cytochrome C reductase complex 14 kDa protein, putative	2,974	7,822	7,697
246779_AT	AT5G27520	mitochondrial substrate carrier family protein	2,242	2,859	4,315
248607_AT	AT5G49480	sodium-inducible calcium-binding protein (ACP1) / sodium-responsive calcium-binding protein (<i>ε</i>)	2,076	2,586	2,87
248487_AT	AT5G51070	ATP-dependent Clp protease ATP-binding subunit (ClpD), (ERD1)	2,096	3,167	4,638
248100_AT	AT5G55180	glycosyl hydrolase family 17 protein	2,201	2,574	2,966
247304_AT	AT5G63850	amino acid transporter 4, putative (AAP4)	2,396	2,213	2,406
247280_AT	AT5G64260	phosphate-responsive protein, putative	3,962	2,246	3,101
247279_AT	AT5G64310	arabinogalactan-protein (AGP1)	4,145	2,741	4,64

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Tabelle 7-106: Liste von Genen, deren Expression durch Pep13-, HrpZ_{PspH}- und NLP_{Pp}-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray -Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{PspH}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	HrpZ _{PspH}	NLP _{Pp}
261033_AT	AT1G17380	expressed protein	2,486	2,489	2,07
256178_S_AT	AT1G51780	IAA-amino acid hydrolase 5 / auxin conjugate hydrolase (ILL5)	2,526	2,377	3,054
262085_AT	AT1G56060	expressed protein	2,145	5,473	2,558
264400_AT	AT1G61800	glucose-6-phosphate/phosphate translocator, putative	11,63	5,312	4,241
267567_AT	AT2G30770	cytochrome P450 71A13, putative (CYP71A13)	3,37	14,67	24,31
257216_AT	AT3G14990	4-methyl-5(b-hydroxyethyl)-thiazole monophosphate biosynthesis protein, putative	3,274	3,458	3,538
251984_AT	AT3G53260	phenylalanine ammonia-lyase 2 (PAL2)	3,106	5,109	3,766
254321_AT	AT4G22590	trehalose-6-phosphate phosphatase, putative	2,032	3,002	2,361
253343_AT	AT4G33540	metallo-beta-lactamase family protein	2,063	2,216	2,005
253203_AT	AT4G34710	arginine decarboxylase 2 (SPE2)	2,182	2,125	2,565
253172_AT	AT4G35060	heavy-metal-associated domain-containing protein / copper chaperone (CCH)-related	2,23	3,062	2,702
250738_AT	AT5G05730	anthranilate synthase, alpha subunit, component I-1 (ASA1)	2,28	4,193	4,278
246744_AT	AT5G27760	hypoxia-responsive family protein	2,083	3,489	2,612
248819_AT	AT5G47050	expressed protein	2,7	4,158	2,841
248139_AT	AT5G54970	expressed protein	2,007	2,168	2,795
247177_AT	AT5G65300	expressed protein	2,686	3,848	2,294

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Tabelle 7-107: Liste von Genen, deren Expression durch Pep13-, NLP_{pp}- und LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{spH}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	NLP _{pp}	LPS
261021_AT	AT1G26380	FAD-binding domain-containing protein	7,074	214,4	3,889
261005_AT	AT1G26420	FAD-binding domain-containing protein	4,572	18,15	2,491
260754_AT	AT1G49000	expressed protein	2,523	3,744	2,247
246368_AT	AT1G51890	leucine-rich repeat protein kinase, putative	3,143	8,02	3,287
262930_AT	AT1G65690	harpin-induced protein-related / HIN1-related / harpin-responsive protein-related	5,52	15,12	3,525
267436_AT	AT2G19190	light-responsive receptor protein kinase / senescence-responsive receptor-like serine/threonine kinase	2,177	6,38	4,643
266967_AT	AT2G39530	integral membrane protein, putative	3,104	22,65	4,787
257540_AT	AT3G21520	expressed protein	10,84	55,68	2,006
257271_AT	AT3G28007	nodulin MtN3 family protein	2,008	2,518	2,031
252908_AT	AT4G39670	expressed protein	4,222	13,92	2,023
249770_AT	AT5G24110	WRKY family transcription factor	5,903	15,27	5,548
249481_AT	AT5G38900	DSBA oxidoreductase family protein	3,684	57,27	2,31

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Tabelle 7-108: Liste von Genen, deren Expression durch flg22-, HrpZ_{P_{sph}}- und NLP_{Pp}- Behandlung nach 4 h in *A. thaliana*-Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sph}}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	flg22	HrpZ _{P_{sph}}	NLP _{Pp}
259428_AT	AT1G01560	mitogen-activated protein kinase, putative / MAPK, putative (MPK11)	3,072	8,705	2,775
264351_AT	AT1G03370	C2 domain-containing protein / GRAM domain-containing protein	2,276	3,641	2,397
263179_AT	AT1G05710	ethylene-responsive protein, putative	3,699	11,11	3,857
256050_AT	AT1G07000	exocyst subunit EXO70 family protein	3,384	9,163	2,205
256046_AT	AT1G07135	glycine-rich protein	2,689	7,791	3,281
261413_AT	AT1G07630	protein phosphatase 2C family protein / PP2C family protein	4,906	4,75	2,309
260648_AT	AT1G08050	zinc finger (C3HC4-type RING finger) family protein	7,769	19,71	3,209
264660_AT	AT1G09940	glutamyl-tRNA reductase 2 / GluTR (HEMA2)	2,478	4,263	2,759
264458_AT	AT1G10410	expressed protein	3,054	3,252	2,26
262793_AT	AT1G13110	cytochrome P450 71B7 (CYP71B7)	7,743	5,288	2,287
261526_AT	AT1G14370	protein kinase (APK2a)	4,614	6,102	2,094
262571_AT	AT1G15430	expressed protein	2,831	4,353	2,399
255904_AT	AT1G17860	trypsin and protease inhibitor family protein / Kunitz family protein	8,663	7,558	2,765
261718_AT	AT1G18390	protein kinase family protein	11,66	22,75	4,531
255753_AT	AT1G18570	myb family transcription factor (MYB51)	4,134	38,75	8,405
261378_AT	AT1G18890	calcium-dependent protein kinase 1 (CDPK1)	3,507	6,999	2,972
262801_AT	AT1G21010	expressed protein	7,847	11,07	4,677
261449_AT	AT1G21120	O-methyltransferase, putative	3,444	30,63	4,348
264200_AT	AT1G22650	beta-fructofuranosidase, putative / invertase, putative / saccharase, putative / beta-fructosidase, put	4,757	6,951	2,183
264774_AT	AT1G22890	expressed protein	2,196	14,79	9,22
265184_AT	AT1G23710	expressed protein	3,253	7,44	2,983
255740_AT	AT1G25390	protein kinase family protein	4,612	6,308	3,389
255733_AT	AT1G25400	expressed protein	4,871	7,801	2,378
245846_AT	AT1G26130	haloacid dehalogenase-like hydrolase family protein	2,187	2,425	2,566
261445_AT	AT1G28380	expressed protein	3,093	5,587	2,31
260896_AT	AT1G29310	protein transport protein sec61, putative	2,94	2,746	2,264
259792_AT	AT1G29690	expressed protein	5,253	9,635	2,214
255995_AT	AT1G29750	leucine-rich repeat transmembrane protein kinase, putative / serine/threonine kinase, putative (RKI)	2,669	3,184	2,467

245775_AT	AT1G30270	CBL-interacting protein kinase 23 (CIPK23)	2,039	6,755	7,456
261240_AT	AT1G32940	subtilase family protein	3,581	8,941	5,623
256511_AT	AT1G33390	helicase domain-containing protein	3,003	3,229	3,322
259626_AT	AT1G42990	bZIP transcription factor family protein	2,001	3,929	2,662
246627_S_AT	AT1G48860	3-phosphoshikimate 1-carboxyvinyltransferase, putative / 5-enolpyruvylshikimate-3-phosphate, pu	2,372	2,941	2,052
246631_AT	AT1G50740	expressed protein	2,163	4,883	2,787
256186_AT	AT1G51680	4-coumarate--CoA ligase 1 / 4-coumaroyl-CoA synthase 1 (4CL1)	2,491	4,346	2,054
260613_AT	AT1G53380	expressed protein	2,245	2,094	2,036
260975_AT	AT1G53430	leucine-rich repeat family protein / protein kinase family protein	3,56	5,503	2,83
262082_S_AT	AT1G56120	leucine-rich repeat family protein / protein kinase family protein	5,804	8,773	2,904
264219_AT	AT1G60420	DC1 domain-containing protein	2,35	2,548	2,013
264929_AT	AT1G60730	aldo/keto reductase family protein	3,242	6,064	4,827
264883_S_AT	AT1G61250	secretory carrier membrane protein (SCAMP) family protein (SC3)	2,236	3,57	2,26
264757_AT	AT1G61360	S-locus lectin protein kinase family protein	7,208	9,506	2,103
264756_AT	AT1G61370	S-locus lectin protein kinase family protein	2,051	4,469	3,907
257466_AT	AT1G62840	expressed protein	4,461	5,385	2,034
260243_AT	AT1G63720	expressed protein	2,776	4,818	2,874
259737_AT	AT1G64400	long-chain-fatty-acid--CoA ligase, putative / long-chain acyl-CoA synthetase, putative	3,161	5,886	4,966
262003_AT	AT1G64460	phosphatidylinositol 3- and 4-kinase family protein	2,975	3,59	2,295
264685_AT	AT1G65610	endo-1,4-beta-glucanase, putative / cellulase, putative	5,678	11,44	5,197
255880_AT	AT1G67060	expressed protein	2,364	6,988	2,806
264232_AT	AT1G67470	protein kinase family protein	2,039	3,797	2,58
260037_AT	AT1G68840	DNA-binding protein RAV2 (RAV2) / AP2 domain-containing protein RAP2.8	18,82	20,84	2,438
260362_AT	AT1G70530	protein kinase family protein	4,433	6,745	3,583
261506_AT	AT1G71697	choline kinase, putative	4,757	6,366	2,574
259852_AT	AT1G72280	endoplasmic reticulum oxidoreductin 1 (ERO1) family protein	5,749	7,266	3,332
260399_AT	AT1G72520	lipoxxygenase, putative	2,269	14,83	3,305
262360_AT	AT1G73080	leucine-rich repeat transmembrane protein kinase, putative	2,526	4,471	2,109
245777_AT	AT1G73540	MutT/nudix family protein	2,548	5,862	2,15
260392_AT	AT1G74030	enolase, putative	5,671	7,316	6,438
260239_AT	AT1G74360	leucine-rich repeat transmembrane protein kinase, putative	6,681	23,76	7,278
261109_AT	AT1G75450	FAD-binding domain-containing protein / cytokinin oxidase family protein	3,242	3,182	2,392
261748_AT	AT1G76070	expressed protein	3,913	7,38	2,355
259884_AT	AT1G76390	armadillo/beta-catenin repeat family protein / U-box domain-containing protein	3,564	4,684	2,202
259979_AT	AT1G76600	expressed protein	3,434	4,792	2,049
246389_AT	AT1G77380	amino acid carrier, putative / amino acid permease, putative	2,377	5,679	3,942

260051_AT	AT1G78210	hydrolase, alpha/beta fold family protein	2,588	3,502	3,171
261402_AT	AT1G79670	wall-associated kinase, putative	2,253	3,078	2,233
260274_AT	AT1G80460	glycerol kinase, putative	7,228	6,296	2,354
266231_AT	AT2G02220	leucine-rich repeat transmembrane protein kinase, putative	13,98	19,63	5,258
267475_AT	AT2G02730	expressed protein	2,398	2,588	2,135
267483_AT	AT2G02810	UDP-galactose/UDP-glucose transporter	2,605	2,142	2,592
263854_AT	AT2G04430	MutT/nudix family protein	2,183	4,058	3,405
266037_AT	AT2G05940	protein kinase, putative	2,779	3,81	2,047
263565_AT	AT2G15390	xyloglucan fucosyltransferase, putative (FUT4)	5,753	20,76	4,335
265359_AT	AT2G16720	myb family transcription factor	2,634	4,444	2,495
264619_AT	AT2G17760	aspartyl protease family protein	3,071	4,298	2,322
265583_AT	AT2G20010	expressed protein	3,23	4,41	2,548
265306_AT	AT2G20320	DENN (AEX-3) domain-containing protein	3,5	5,697	3,399
265384_AT	AT2G20760	expressed protein	2,245	2,59	2,103
265385_AT	AT2G20900	diacylglycerol kinase, putative	2,378	4,168	2,632
265440_AT	AT2G20960	expressed protein	2,539	5,39	2,398
266799_AT	AT2G22860	phytosulfokines 2 (PSK2)	2,273	3,094	2,34
245051_AT	AT2G23320	WRKY family transcription factor	4,744	7,853	3,363
267293_AT	AT2G23810	senescence-associated family protein	3,082	4,622	2,055
263797_AT	AT2G24570	WRKY family transcription factor	21,7	12,97	3,615
263570_AT	AT2G27150	aldehyde oxidase 3 (AAO3)	4,427	3,458	2,09
257377_AT	AT2G28890	protein phosphatase 2C family protein / PP2C family protein	4,434	4,025	2,787
266803_AT	AT2G28930	protein kinase (APK1b)	3,251	3,368	3,327
263866_AT	AT2G36950	heavy-metal-associated domain-containing protein	4,312	5,058	2,879
266101_AT	AT2G37940	expressed protein	2,304	6,626	3,036
266993_AT	AT2G39210	nodulin family protein	9,676	8,135	2,723
267624_AT	AT2G39660	protein kinase, putative	5,683	7,157	2,719
267357_AT	AT2G40000	expressed protein	4,961	12,11	2,152
265720_AT	AT2G40110	yippee family protein	2,794	3,827	2,483
263379_AT	AT2G40140	zinc finger (CCCH-type) family protein	2,099	6,149	3,117
267069_AT	AT2G41010	VQ motif-containing protein	7,991	13,7	2,979
267083_AT	AT2G41100	touch-responsive protein / calmodulin-related protein 3, touch-induced (TCH3)	2,38	7,973	3,268
266452_AT	AT2G43320	expressed protein	2,651	4,114	2,45
260560_AT	AT2G43590	chitinase, putative	3,569	14,72	19,93
267230_AT	AT2G44080	expressed protein	2,431	4,258	3,275
267238_AT	AT2G44130	kelch repeat-containing F-box family protein	3,392	3,585	3,138

266581_AT	AT2G46140	late embryogenesis abundant protein, putative / LEA protein, putative	2,727	6,42	9,42
263783_AT	AT2G46400	WRKY family transcription factor	4,511	8,712	3,632
265461_AT	AT2G46500	phosphatidylinositol 3- and 4-kinase family protein / ubiquitin family protein	3,411	4,192	2,817
266761_AT	AT2G47130	short-chain dehydrogenase/reductase (SDR) family protein	3,501	6,224	2,376
266461_AT	AT2G47730	glutathione S-transferase 6 (GST6)	2,703	2,833	2,086
259272_AT	AT3G01290	band 7 family protein	6,05	9,297	2,307
259198_AT	AT3G03610	phagocytosis and cell motility protein ELMO1-related	2,046	2,899	2,151
258566_AT	AT3G04110	glutamate receptor family protein (GLR1.1) (GLR1)	5,295	7,185	2,315
258852_AT	AT3G06300	oxidoreductase, 2OG-Fe(II) oxygenase family protein	2,85	3,363	2,11
259018_AT	AT3G07390	auxin-responsive protein / auxin-induced protein (AIR12)	3,949	4,144	5,134
258682_AT	AT3G08720	serine/threonine protein kinase (PK19)	2,461	6,069	2,012
258982_AT	AT3G08870	lectin protein kinase, putative	2,923	4,847	2,03
258984_AT	AT3G08970	DNAJ heat shock N-terminal domain-containing protein	9,829	8,522	4,039
259213_AT	AT3G09010	protein kinase family protein	2,213	6,38	5,947
258786_AT	AT3G11820	syntaxin 121 (SYP121) / syntaxin-related protein (SYR1)	3,088	5,742	2,366
258787_AT	AT3G11840	U-box domain-containing protein	6,214	17,61	6,118
257690_AT	AT3G12830	auxin-responsive family protein	3,105	8,588	3,324
256958_AT	AT3G13430	zinc finger (C3HC4-type RING finger) family protein	2,106	4,765	2,691
256787_AT	AT3G13790	beta-fructosidase (BFRUCT1) / beta-fructofuranosidase / cell wall invertase	5,306	5,909	2,849
258207_AT	AT3G14050	RelA/SpoT protein, putative (RSH2)	2,844	5,425	2,364
258463_AT	AT3G17410	serine/threonine protein kinase, putative	2,092	4,262	2,116
258349_AT	AT3G17610	Expressed protein ; supported by full-length cDNA: Ceres: 35429.	4,379	4,79	2,263
257751_AT	AT3G18690	VQ motif-containing protein	3,787	6,867	2,512
257805_AT	AT3G18830	mannitol transporter, putative	3,143	4,883	2,4
256922_AT	AT3G19010	oxidoreductase, 2OG-Fe(II) oxygenase family protein	4,427	7,007	2,868
257022_AT	AT3G19580	zinc finger (C2H2 type) protein 2 (AZF2)	2,139	4,501	2,087
257074_AT	AT3G19660	expressed protein	4,076	5,115	2,855
257621_AT	AT3G20410	calmodulin-domain protein kinase isoform 9 (CPK9)	2,149	4,425	2,275
256968_AT	AT3G21070	ATP-NAD kinase family protein	2,428	7,191	2,317
256969_AT	AT3G21080	ABC transporter-related	6,675	30,64	4,634
258037_AT	AT3G21230	4-coumarate--CoA ligase, putative / 4-coumaroyl-CoA synthase, putative (4CL)	9,778	24,35	4,69
258173_AT	AT3G21630	protein kinase family protein	2,93	3,782	2,307
256793_AT	AT3G22160	VQ motif-containing protein	4,588	11,68	3,582
256911_AT	AT3G24090	glucosamine--fructose-6-phosphate aminotransferase (isomerizing), putative / hexosephosphate an	2,899	3,016	3,509
257099_S_AT	AT3G24982	leucine-rich repeat family protein, 5' fragment	3,313	3,172	2,084
256756_AT	AT3G25610	haloacid dehalogenase-like hydrolase family protein	3,362	11,18	5,725

256583_AT	AT3G28850	glutaredoxin family protein	3,127	3,872	2,543
256735_AT	AT3G29400	exocyst subunit EXO70 family protein	2,208	4,166	2,747
252652_AT	AT3G44720	prephenate dehydratase family protein	2,135	9,368	4,553
252602_AT	AT3G45040	phosphatidate cytidyltransferase family protein	2,23	3,968	2,342
252414_AT	AT3G47420	glycerol-3-phosphate transporter, putative / glycerol 3-phosphate permease, putative	2,177	11,45	5,63
252417_AT	AT3G47480	calcium-binding EF hand family protein	5,268	7,746	3,258
252367_AT	AT3G48360	speckle-type POZ protein-related	4,762	11,24	3,941
252331_S_AT	AT3G48790	serine C-palmitoyltransferase, putative	2,551	5,132	2,757
252291_S_AT	AT3G49120	peroxidase, putative	2,125	2,737	3,07
252310_AT	AT3G49350	RabGAP/TBC domain-containing protein	2,068	3,639	2,073
252278_AT	AT3G49530	no apical meristem (NAM) family protein	2,412	3,295	2,031
252170_AT	AT3G50480	broad-spectrum mildew resistance RPW8 family protein	5,32	6,218	2,336
252131_AT	AT3G50930	AAA-type ATPase family protein	2,957	12,35	5,115
252121_AT	AT3G51160	GDP-D-mannose-4,6-dehydratase (MUR1)	2,285	3,74	2,597
252076_AT	AT3G51660	macrophage migration inhibitory factor family protein / MIF family protein	6,221	4,693	2,248
252053_AT	AT3G52400	syntaxin, putative (SYP122)	7,832	20,97	3,43
251953_AT	AT3G53660	'putative protein predicted protein, Arabidopsis thaliana'	3,208	2,39	2,337
251954_AT	AT3G53670	expressed protein	2,221	2,339	2,244
251910_AT	AT3G53810	lectin protein kinase, putative	2,391	6,429	4,297
251797_AT	AT3G55560	DNA-binding protein-related	2,644	3,77	2,909
251745_AT	AT3G55980	zinc finger (CCCH-type) family protein	5,171	14,63	3,471
251684_AT	AT3G56410	expressed protein	2,009	3,098	2,09
251643_AT	AT3G57550	guanylate kinase 2 (GK-2)	4,704	12,17	3,881
251507_AT	AT3G59080	aspartyl protease family protein	3,117	11,92	3,065
251475_AT	AT3G59660	C2 domain-containing protein / GRAM domain-containing protein	2,339	4,689	3,283
251479_AT	AT3G59700	lectin protein kinase, putative	9,846	18,03	7,309
251422_AT	AT3G60540	sec61beta family protein	3,297	3,648	2,593
255605_AT	AT4G01090	extra-large G-protein-related	2,755	3,575	7,359
255564_S_AT	AT4G01750	expressed protein	18,8	21,2	5,348
255479_AT	AT4G02380	late embryogenesis abundant 3 family protein / LEA3 family protein	12,18	22,68	6,377
255406_AT	AT4G03450	ankyrin repeat family protein	4,005	12,81	5,63
255280_AT	AT4G04960	lectin protein kinase, putative	2,643	5,951	3,641
255151_AT	AT4G08180	oxysterol-binding family protein	2,345	3,944	2,637
254926_AT	AT4G11280	1-aminocyclopropane-1-carboxylate synthase 6 / ACC synthase 6 (ACS6)	2,822	7,218	6,218
254869_AT	AT4G11890	protein kinase family protein	9,089	9,68	2,275
254784_AT	AT4G12720	MutT/nudix family protein	2,173	4,282	2,343

254759_AT	AT4G13180	short-chain dehydrogenase/reductase (SDR) family protein	2,897	5,239	2,997
245566_AT	AT4G14610	pseudogene, disease resistance protein (CC-NBS-LRR class), putative	2,837	5,203	2,888
245251_AT	AT4G17615	calcineurin B-like protein 1 (CBL1)	3,512	7,554	2,001
245365_AT	AT4G17720	RNA recognition motif (RRM)-containing protein	2,084	3,842	2,849
254605_AT	AT4G18950	ankyrin protein kinase, putative	4,399	4,702	2,266
254408_AT	AT4G21390	S-locus lectin protein kinase family protein	16,01	63,53	9,878
254409_AT	AT4G21400	protein kinase family protein	8,067	14,92	5,46
254300_AT	AT4G22780	ACT domain-containing protein (ACR7)	4,24	8,846	3,225
254289_AT	AT4G22980	expressed protein	4,898	7,376	3,178
254241_AT	AT4G23190	protein kinase family protein	8,231	25,7	4,811
254242_AT	AT4G23200	protein kinase family protein	3,734	4,634	2,116
254253_AT	AT4G23320	protein kinase family protein	4,044	7,578	2,401
254262_AT	AT4G23480	'putative protein annexin VII, Dictyostelium discoideum, PIR1:LUDO7'	2,463	3,398	2,028
254159_AT	AT4G24240	WRKY family transcription factor	15,73	10,56	2,311
254103_AT	AT4G25030	expressed protein	3,022	5,649	3,975
254091_AT	AT4G25060	hypothetical protein	2,833	3,947	3,441
253824_AT	AT4G27940	mitochondrial substrate carrier family protein	2,016	4,448	3,305
253776_AT	AT4G28390	ADP, ATP carrier protein, mitochondrial, putative / ADP/ATP translocase, putative / adenine nucl	2,828	4,504	2,174
253702_AT	AT4G29900	calcium-transporting ATPase, plasma membrane-type, putative / Ca ²⁺ -ATPase, putative (ACA10)	2,19	3,012	2,103
253401_AT	AT4G32870	expressed protein	6,926	4,861	2,087
253414_AT	AT4G33050	calmodulin-binding family protein	5,76	13,27	4,443
253338_AT	AT4G33430	brassinosteroid insensitive 1-associated receptor kinase 1 (BAK1) / somatic embryogenesis receptc	2,106	4,252	2,922
253268_S_AT	AT4G34135	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,697	4,745	3,099
253273_AT	AT4G34180	cyclase family protein	2,833	4,479	2,362
253177_S_AT	AT4G35150	O-methyltransferase family 2 protein	2,067	2,698	2,254
246214_AT	AT4G36990	heat shock factor protein 4 (HSF4) / heat shock transcription factor 4 (HSTF4)	13,37	28,21	7,16
253046_AT	AT4G37370	cytochrome P450, putative	3,84	11,28	4,531
252940_AT	AT4G39270	leucine-rich repeat transmembrane protein kinase, putative	7,41	19,05	4,283
252906_AT	AT4G39640	gamma-glutamyltranspeptidase family protein	2,856	7,278	2,701
252862_AT	AT4G39830	L-ascorbate oxidase, putative	8,806	23,64	2,287
251086_AT	AT5G01450	expressed protein	2,043	2,91	2,081
251054_AT	AT5G01540	lectin protein kinase, putative	12,14	27,03	2,558
251096_AT	AT5G01550	lectin protein kinase, putative	3,627	19,28	10,88
251037_AT	AT5G02100	oxysterol-binding family protein	2,849	4,468	2,396
250941_AT	AT5G03320	protein kinase, putative	2,409	5,065	2,235
250944_AT	AT5G03380	heavy-metal-associated domain-containing protein	2,35	4,988	3,179

250821_AT	AT5G05190	expressed protein	11,87	10,64	2,884
250689_AT	AT5G06610	expressed protein	2,177	3,288	2,21
250398_AT	AT5G11000	expressed protein	2,705	5,856	2,436
250335_AT	AT5G11650	hydrolase, alpha/beta fold family protein	4,052	4,632	2,093
250301_AT	AT5G11970	expressed protein	3,983	6,258	2,074
245156_AT	AT5G12480	calmodulin-domain protein kinase isoform 7 (CPK7)	2,01	4,714	3,169
250234_AT	AT5G13420	transaldolase, putative	3,004	3,273	2,001
250149_AT	AT5G14700	cinnamoyl-CoA reductase-related	2,988	9,052	3,407
246528_AT	AT5G15640	mitochondrial substrate carrier family protein	2,04	2,782	2,142
246529_AT	AT5G15730	serine/threonine protein kinase, putative	2,75	4,418	2,282
246532_AT	AT5G15870	glycosyl hydrolase family 81 protein	3,258	8,299	3,894
250100_AT	AT5G16570	glutamine synthetase, putative	9,938	10,2	3,149
249984_AT	AT5G18400	expressed protein	2,177	4,382	2,259
249987_AT	AT5G18490	expressed protein	2,164	5,792	2,875
250004_AT	AT5G18750	DNAJ heat shock N-terminal domain-containing protein	2,243	2,801	2,415
246146_AT	AT5G20050	protein kinase family protein	10,24	9,581	3,12
249928_AT	AT5G22250	CCR4-NOT transcription complex protein, putative	3,084	8,61	3,027
249941_AT	AT5G22270	expressed protein	4,629	7,233	5,256
249835_S_AT	AT5G23510	expressed protein	2,048	4,265	2,049
249730_AT	AT5G24430	calcium-dependent protein kinase, putative / CDPK, putative	6,643	6,848	2,148
246927_S_AT	AT5G25260	expressed protein	12,35	34,84	4,738
246870_AT	AT5G26030	ferrochelatae I	2,39	3,73	2,862
246821_AT	AT5G26920	calmodulin-binding protein	29,66	51,4	4,576
246682_AT	AT5G33290	exostosin family protein	3,121	4,128	2,345
246607_AT	AT5G35370	lectin protein kinase family protein	2,888	5,328	2,399
249417_AT	AT5G39670	calcium-binding EF hand family protein	3,298	8,626	3,6
249264_S_AT	AT5G41740	disease resistance protein (TIR-NBS-LRR class), putative	3,013	7,955	3,083
249237_AT	AT5G42050	expressed protein	2,522	3,708	2,118
249140_AT	AT5G43190	F-box family protein (FBX6)	3,554	5,056	2,195
249089_AT	AT5G44240	haloacid dehalogenase-like hydrolase family protein	2,028	3,656	2,591
249051_AT	AT5G44390	FAD-binding domain-containing protein	12,16	9,7	4,544
248971_AT	AT5G45000	Toll-Interleukin-Resistance (TIR) domain-containing protein	12,09	18,42	4,708
248980_AT	AT5G45090	lectin-related	3,457	11,75	16,78
248981_AT	AT5G45110	ankyrin repeat family protein / BTB/POZ domain-containing protein	2,237	3,485	2,726
248889_AT	AT5G46230	expressed protein	2,238	2,747	2,128
248697_AT	AT5G48370	thioesterase family protein	2,048	2,461	2,107

248550_AT	AT5G50210	quinolinate synthetase A-related	2,848	3,057	2,357
248422_AT	AT5G51640	leaf senescence protein-related (YLS7)	2,799	3,023	2,541
248276_AT	AT5G53550	transporter, putative	2,637	3,039	2,072
248162_AT	AT5G54500	quinone reductase, putative	2,798	5,104	2,818
248176_AT	AT5G54650	formin homology 2 domain-containing protein / FH2 domain-containing protein	2,028	4,803	4,149
248123_AT	AT5G54720	ankyrin repeat family protein	7,135	12,32	2,998
248134_AT	AT5G54860	integral membrane transporter family protein	2,084	3,044	2,578
247989_AT	AT5G56350	pyruvate kinase, putative	2,887	4,565	2,577
247912_AT	AT5G57480	AAA-type ATPase family protein	4,62	8,254	6,08
247819_AT	AT5G58350	protein kinase family protein	8,113	7,348	2,309
247817_AT	AT5G58375	expressed protein	2,708	3,002	2,605
247617_AT	AT5G60270	lectin protein kinase family protein	2,011	5,353	2,994
247493_AT	AT5G61900	copine BONZAI1 (BON1)	3,023	6,281	2,043
247444_AT	AT5G62630	expressed protein	5,831	2,484	3,266
247338_AT	AT5G63680	pyruvate kinase, putative	2,32	4,732	4,34
247293_AT	AT5G64510	expressed protein	2,345	2,143	2,127
247240_AT	AT5G64660	U-box domain-containing protein	7,943	23,31	5,944
246989_AT	AT5G67350	expressed protein	2,07	3,32	2,408
246993_AT	AT5G67450	zinc finger (C2H2 type) protein 1 (AZF1)	21,59	44,86	3,07

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-109: Liste von Genen, deren Expression durch flg22-, HrpZ_{P_{sph}}- und LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	flg22	HrpZ _{P_{sph}}	LPS
260623_AT	AT1G08090	high-affinity nitrate transporter (ACH1)	16,72	2,086	2,616
260978_AT	AT1G53540	17.6 kDa class I small heat shock protein (HSP17.6C-CI) (AA 1-156)	3,264	6,501	4,051
262324_AT	AT1G64170	cation/hydrogen exchanger, putative (CHX16)	36,88	20,86	2,744
264153_AT	AT1G65390	disease resistance protein (TIR class), putative	52,22	22,94	2,52
264213_AT	AT1G65400	hypothetical protein contains similarity to lectin polypeptide GI:410436 from [<i>Cucurbita maxima</i>]	47,91	21,13	2,815
264635_AT	AT1G65500	expressed protein	21,65	16,27	2,287
260248_AT	AT1G74310	heat shock protein 101 (HSP101)	2,444	5,022	2,069
262215_AT	AT1G74790	expressed protein	2,917	2,339	2,044
255596_AT	AT4G01720	WRKY family transcription factor	10,68	9,577	2,04
250351_AT	AT5G12030	17.7 kDa class II heat shock protein 17.6A (HSP17.7-CII)	3,317	7,722	4,604
248434_AT	AT5G51440	23.5 kDa mitochondrial small heat shock protein (HSP23.5-M)	2,582	5,237	3,148
248037_AT	AT5G55930	oligopeptide transporter OPT family protein	21,1	7,097	2,672

Zusätzliche Informationen zur Dissertation von Yvonne Gäbler, 2007

Tabelle 7-110: Liste von Genen, deren Expression durch Pep13-, flg22-, HrpZ_{PspH}- und NLP_{Pp}- Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{PspH}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	flg22	HrpZ _{PspH}	NLP _{Pp}
261585_AT	AT1G01010	no apical meristem (NAM) family protein	2,394	3,302	4,029	2,683
264645_AT	AT1G08940	phosphoglycerate/bisphosphoglycerate mutase family protein	2,475	2,261	11,89	7,245
264506_AT	AT1G09560	germin-like protein (GLP4) (GLP5)	2,612	8,472	9,084	5,251
264467_AT	AT1G10140	expressed protein	4,105	2,902	7,933	7,395
259502_AT	AT1G15670	kelch repeat-containing F-box family protein	5,218	17,82	14,49	3,483
261037_AT	AT1G17420	lipoxygenase, putative	5,251	10,46	7,082	2,417
259479_AT	AT1G19020	expressed protein	4,669	5,305	29,89	7,813
256017_AT	AT1G19180	expressed protein	3,599	5,459	8,611	3,031
260881_AT	AT1G21550	calcium-binding protein, putative	2,774	22,31	43,28	4,728
261934_AT	AT1G22400	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,204	3,961	7,935	5,323
261648_AT	AT1G27730	zinc finger (C2H2 type) family protein (ZAT10) / salt-tolerance zinc finger protein (S	2,796	12,26	18,43	3,689
261501_AT	AT1G28390	protein kinase family protein	2,991	6,508	8,225	3,591
263221_AT	AT1G30620	UDP-D-xylose 4-epimerase, putative (MUR4)	2,015	2,503	8,005	5,35
261193_AT	AT1G32920	expressed protein	2,819	2,968	7,324	2,157
261242_AT	AT1G32960	subtilase family protein	4,194	7,091	55,02	36,55
245832_AT	AT1G48850	chorismate synthase, putative / 5-enolpyruvylshikimate-3-phosphate phospholyase, pu	2,045	3,309	3,393	2,112
260203_AT	AT1G52890	no apical meristem (NAM) family protein	18,73	6,266	5,053	2,741
246405_AT	AT1G57630	disease resistance protein (TIR class), putative	2,325	9,189	27,72	6,015
264746_AT	AT1G62300	WRKY family transcription factor	2,204	5,858	15,55	5,463
260327_AT	AT1G63840	zinc finger (C3HC4-type RING finger) family protein	3,084	4,633	5,107	2,766
256526_AT	AT1G66090	disease resistance protein (TIR-NBS class), putative	2,052	9,263	33,67	6,128
256522_AT	AT1G66160	U-box domain-containing protein	3,752	8,485	33,93	5,877
260386_AT	AT1G74010	strictosidine synthase family protein	4,579	8,162	6,408	3,923
260391_AT	AT1G74020	strictosidine synthase family protein	2,742	7,376	7,18	4,453
259879_AT	AT1G76650	calcium-binding EF hand family protein	2,369	3,266	6,198	2,006
260804_AT	AT1G78410	VQ motif-containing protein	2,773	4,141	37,25	15,4
260287_AT	AT1G80440	kelch repeat-containing F-box family protein	2,75	3,172	4,829	3,04
261892_AT	AT1G80840	WRKY family transcription factor	3,163	9,688	23,32	4,601

265221_S_AT	AT2G02010	glutamate decarboxylase, putative	6,956	4,286	17,44	17,18
265479_AT	AT2G15760	calmodulin-binding protein	3,613	6,724	12,12	6,335
266536_AT	AT2G16900	expressed protein	4,099	3,981	12,17	9,226
266017_AT	AT2G18690	expressed protein	2,364	5,891	11,83	3,297
266800_AT	AT2G22880	VQ motif-containing protein	3,852	38,4	55,26	4,046
263539_AT	AT2G24850	aminotransferase, putative	2,85	3,711	6,525	2,843
266658_AT	AT2G25735	expressed protein	3,427	16,23	39,3	4,328
245041_AT	AT2G26530	expressed protein	2,242	2,575	6,437	2,933
266246_AT	AT2G27690	cytochrome P450, putative	2,582	4,933	6,367	2,89
266271_AT	AT2G29440	glutathione S-transferase, putative	9,652	3,462	2,121	3,479
266267_AT	AT2G29460	glutathione S-transferase, putative	3,682	8,156	19,31	12,27
267470_AT	AT2G30490	trans-cinnamate 4-monooxygenase / cinnamic acid 4-hydroxylase (C4H) (CA4H) / cy	2,452	6,012	7,56	2,861
265670_S_AT	AT2G32210	expressed protein	4,588	2,738	9,629	2,693
265679_AT	AT2G32240	expressed protein	2,421	2,344	4,977	3,355
263931_AT	AT2G36220	expressed protein	4,285	3,128	4,745	3,498
263845_AT	AT2G37040	phenylalanine ammonia-lyase 1 (PAL1)	2,592	6,964	9,495	3,895
267028_AT	AT2G38470	WRKY family transcription factor	2,279	8,483	35,18	5,435
266983_AT	AT2G39400	hydrolase, alpha/beta fold family protein	3	4,886	27,94	8,837
260551_AT	AT2G43510	trypsin inhibitor, putative	3,231	4,327	4,843	3,086
260546_AT	AT2G43520	trypsin inhibitor, putative	4,129	5,576	4,618	3,305
258809_AT	AT3G04070	no apical meristem (NAM) family protein	2,446	10,12	8,961	3,273
259312_AT	AT3G05200	zinc finger (C3HC4-type RING finger) family protein (ATL6)	2,046	6,205	12,55	4,35
259033_AT	AT3G09410	pectinacylesterase family protein	11,13	2,493	20,45	13,73
256245_AT	AT3G12580	heat shock protein 70, putative / HSP70, putative	5,531	2,713	4,362	2,036
258201_AT	AT3G13910	expressed protein	2,043	4,041	5,138	2,466
257206_AT	AT3G16530	legume lectin family protein	6,446	4,405	13,07	8,561
257571_AT	AT3G16870	zinc finger (GATA type) family protein	2,466	2,129	3,377	2,13
258167_AT	AT3G21560	UDP-glucosyltransferase, putative	2,712	4,618	5,806	2,546
256933_AT	AT3G22600	protease inhibitor/seed storage/lipid transfer protein (LTP) family protein	15,68	2,501	40,07	64,99
257919_AT	AT3G23250	myb family transcription factor (MYB15)	2,208	28,07	53,79	4,686
258100_AT	AT3G23550	MATE efflux family protein	7,446	9,696	72,69	13,34
257592_AT	AT3G24954	leucine-rich repeat family protein	2,731	6,201	4,209	2,253
257835_AT	AT3G25180	cytochrome P450 family protein	3,681	11,16	8,306	3,397
256633_AT	AT3G28340	galactinol synthase, putative	2,985	7,705	15,42	2,414
252364_AT	AT3G48450	nitrate-responsive NOI protein, putative	3,804	2,157	6,102	3,677
252234_AT	AT3G49780	phytosulfokines 3 (PSK3)	3,94	9,116	18,07	10,27

252133_AT	AT3G50900	expressed protein	2,423	3,232	5,958	4,436
251847_AT	AT3G54640	tryptophan synthase, alpha subunit (TSA1)	2,419	2,361	4,152	3,295
251790_AT	AT3G55470	C2 domain-containing protein	3,52	7,491	21,98	11,98
251770_AT	AT3G55970	oxidoreductase, 2OG-Fe(II) oxygenase family protein	8,523	4,343	5,206	4,417
251640_AT	AT3G57450	expressed protein	2,378	4,148	7,282	2,77
255543_AT	AT4G01870	tolB protein-related	3,026	2,723	5,923	3,391
254652_AT	AT4G18170	WRKY family transcription factor	5,721	8,39	21,91	8,074
254487_AT	AT4G20780	calcium-binding protein, putative	2,136	3,966	5,082	2,632
254432_AT	AT4G20830	FAD-binding domain-containing protein	2,168	4,322	6,925	2,861
254385_S_AT	AT4G21830	methionine sulfoxide reductase domain-containing protein / SeIR domain-containing	4,543	2,097	7,784	6,673
254387_AT	AT4G21850	methionine sulfoxide reductase domain-containing protein / SeIR domain-containing	4,142	2,657	14,19	3,481
254318_AT	AT4G22530	embryo-abundant protein-related	2,396	2,811	6,351	3,712
253915_AT	AT4G27280	calcium-binding EF hand family protein	2,174	2,533	7,502	2,612
253696_AT	AT4G29740	FAD-binding domain-containing protein / cytokinin oxidase family protein	2,107	6,069	7,503	4,87
253485_AT	AT4G31800	WRKY family transcription factor	2,507	2,069	4,066	2,674
253323_AT	AT4G33920	protein phosphatase 2C family protein / PP2C family protein	2,039	2,785	6,758	3,49
253173_AT	AT4G35110	expressed protein	2,347	5,982	13,76	3,895
246247_AT	AT4G36640	SEC14 cytosolic factor family protein / phosphoglyceride transfer family protein	3,217	3,231	6,881	4,906
253099_S_AT	AT4G37530	peroxidase, putative	2,588	7,118	8,681	2,846
252993_AT	AT4G38540	monooxygenase, putative (MO2)	3,014	15,73	27,54	5,12
252939_AT	AT4G39230	isoflavone reductase, putative	3,61	8,502	18,11	2,553
250994_AT	AT5G02490	heat shock cognate 70 kDa protein 2 (HSC70-2) (HSP70-2)	3,277	3,308	5,677	3,386
250918_AT	AT5G03610	GDSL-motif lipase/hydrolase family protein	6,448	2,77	17,46	17,9
250916_AT	AT5G03630	monodehydroascorbate reductase, putative	2,377	2,208	3,334	2,268
250680_AT	AT5G06570	expressed protein	3,049	36,52	32,94	3,891
250670_AT	AT5G06860	polygalacturonase inhibiting protein 1 (PGIP1)	2,371	5,791	5,092	3,012
250580_AT	AT5G07440	glutamate dehydrogenase 2 (GDH2)	2,411	3,013	4,833	2,696
250339_AT	AT5G11670	malate oxidoreductase, putative	2,473	3,412	4,621	2,874
250289_AT	AT5G13190	expressed protein	2,214	2,964	7,024	3,663
250292_AT	AT5G13220	expressed protein	4,237	3,564	4,408	3,182
245854_AT	AT5G13490	ADP, ATP carrier protein 2, mitochondrial / ADP/ATP translocase 2 / adenine nucleoc	2,852	3,071	4,525	3,543
250018_AT	AT5G18150	expressed protein	2,331	4,92	11,89	5,653
246099_AT	AT5G20230	plastocyanin-like domain-containing protein	2,368	2,405	4,427	2,238
245929_AT	AT5G24760	alcohol dehydrogenase, putative	3,221	5,187	7,79	4,384
246777_AT	AT5G27420	zinc finger (C3HC4-type RING finger) family protein	2,43	11,61	46,87	7,336
249719_AT	AT5G35735	auxin-responsive family protein	2,521	3,229	5,957	2,374

249527_AT	AT5G38710	proline oxidase, putative / osmotic stress-responsive proline dehydrogenase, putative	11,43	29,52	43,28	14,66
249188_AT	AT5G42830	transferase family protein	3,092	6,812	23,84	2,335
248896_AT	AT5G46350	WRKY family transcription factor	3,795	6,075	15,33	10,3
248686_AT	AT5G48540	33 kDa secretory protein-related	2,811	6,674	9,941	3,481
248381_AT	AT5G51830	pfkB-type carbohydrate kinase family protein	2,282	6,092	7,31	3,626
248392_AT	AT5G52050	MATE efflux protein-related	2,948	5,49	10,17	3,092
248200_AT	AT5G54160	quercetin 3-O-methyltransferase 1 / flavonol 3-O-methyltransferase 1 / caffeic acid/5-	2,318	4,339	4,445	2,061
248163_AT	AT5G54510	auxin-responsive GH3 protein, putative (DFL-1)	2,364	4,365	8,082	4,806
248058_AT	AT5G55530	C2 domain-containing protein	2	2,501	2,487	2,059
247945_AT	AT5G57150	basic helix-loop-helix (bHLH) family protein	3,588	2,952	4,998	2,681
247655_AT	AT5G59820	zinc finger (C2H2 type) family protein (ZAT12)	3,743	4,957	14	3,995

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Tabelle 7-111: Liste von Genen, deren Expression durch Pep13-, flg22-, HrpZ_{P_{sph}}-, und LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.
Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{Pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	flg22	HrpZ _{P_{sph}}	LPS
245757_AT	AT1G35140	phosphate-responsive protein, putative	2,967	3,579	15,92	2,16
262911_S_AT	AT1G59860	17.6 kDa class I heat shock protein (HSP17.6A-CI)	6,024	3,996	7,343	2,655
264960_AT	AT1G76930	proline-rich extensin-like family protein	2,757	4,095	4,261	2,303
265418_AT	AT2G20880	AP2 domain-containing transcription factor, putative	3,52	6,969	3,435	2,353
258209_AT	AT3G14060	expressed protein	3,213	10,43	3,369	2,468
252515_AT	AT3G46230	17.4 kDa class I heat shock protein (HSP17.4-CI)	2,464	3,68	8,865	3,251
252487_AT	AT3G46660	UDP-glucuronosyl/UDP-glucosyl transferase family protein	5,831	5,913	5,904	3,389
252437_AT	AT3G47380	invertase/pectin methylesterase inhibitor family protein	2,339	8,768	6,003	2,139
254805_AT	AT4G12480	protease inhibitor/seed storage/lipid transfer protein (LTP) family protein	2,228	9,157	8,116	2,283
254314_AT	AT4G22470	protease inhibitor/seed storage/lipid transfer protein (LTP) family protein	6,014	20,76	12,95	3,577
246238_AT	AT4G36670	mannitol transporter, putative	2,824	31,67	19,17	3,569
248118_AT	AT5G55050	GDSL-motif lipase/hydrolase family protein	2,185	9,395	6,151	2,268

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Tabelle 7-112: Liste von Genen, deren Expression durch Pep13-, HrpZ_{P_{sph}}-, NLP_{pp}- und LPS-Behandlung nach 4 h in *A. thaliana*-Pflanzen induziert wird.
Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress*-Initiative (flg22, HrpZ_{P_{sph}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	HrpZ _{P_{sph}}	NLP _{pp}	LPS
262518_AT	AT1G17170	glutathione S-transferase, putative	2,633	3,796	4,168	3,141

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Tabelle 7-113: Liste von Genen, deren Expression durch flg22-, HrpZ_{P_{sph}}-, NLP_{pp}- und LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.
Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{pp} und LPS).

Datensatz ID	AGI	Beschreibung	flg22	HrpZ _{P_{sph}}	NLP _{pp}	LPS
256177_AT	AT1G51620	protein kinase family protein	48,19	31,3	2,032	2,082
256170_AT	AT1G51790	leucine-rich repeat protein kinase, putative	14,25	12,83	2,018	2,142
256169_AT	AT1G51800	leucine-rich repeat protein kinase, putative	72,04	58,15	2,54	4,106
266247_AT	AT2G27660	DC1 domain-containing protein	28,7	28,2	3,445	2,174
266184_S_AT	AT2G38940	phosphate transporter (PT2)	62,86	62,74	11,68	3,848
252604_AT	AT3G45060	high-affinity nitrate transporter, putative	7,884	19,84	4,694	2,611
252098_AT	AT3G51330	aspartyl protease family protein	27,21	21,1	4,424	2,189
253643_AT	AT4G29780	expressed protein	14,55	20,35	2,491	2,109
250909_AT	AT5G03700	PAN domain-containing protein	22,18	8,685	2,968	2,241
247532_AT	AT5G61560	protein kinase family protein	21,52	23,37	7,504	2,189

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Tabelle 7-114: Liste von Genen, deren Expression durch Pep13-, flg22-, HrpZ_{P_{sph}}-, NLP_{P_p}- und LPS-Behandlung nach 4 h in *A. thaliana* -Pflanzen induziert wird.

Microarray-Analyse mit eigenen Daten (Pep13) und Daten der *AtGenExpress* -Initiative (flg22, HrpZ_{P_{sph}}, NLP_{P_p} und LPS).

Datensatz ID	AGI	Beschreibung	Pep13	flg22	HrpZ _{P_{sph}}	NLP _{P_p}	LPS
259443_AT	AT1G02360	chitinase, putative	2,66	19,83	44,68	15,15	2,123
263216_S_AT	AT1G30720	FAD-binding domain-containing protein	2,294	60,62	32,98	5,922	2,763
259841_AT	AT1G52200	expressed protein	2,538	32,55	31,87	3,826	2,573
264886_AT	AT1G61120	terpene synthase/cyclase family protein	6,074	15,66	35,86	29,37	2,73
264717_AT	AT1G70140	formin homology 2 domain-containing protein / FH2 domain-containing protein	2,256	16,71	15,38	2,76	2,297
264616_AT	AT2G17740	DC1 domain-containing protein	8,862	194,8	210,7	14,62	10,75
264005_AT	AT2G22470	arabinogalactan-protein (AGP2)	4,634	2,487	11,64	2,44	2,743
263935_AT	AT2G35930	U-box domain-containing protein	3,799	100,3	132,4	11,56	2,084
267168_AT	AT2G37770	aldo/keto reductase family protein	4,52	2,283	3,754	3,12	3,44
266992_AT	AT2G39200	seven transmembrane MLO family protein / MLO-like protein 12 (MLO12)	2,839	81,71	91,76	6,317	4,233
258947_AT	AT3G01830	calmodulin-related protein, putative	2,229	28,88	65,34	4,592	2,189
256252_AT	AT3G11340	UDP-glucuronosyl/UDP-glucosyl transferase family protein	2,006	15,54	17,26	3,505	2,382
257951_AT	AT3G21700	expressed protein	3,441	6,868	11,99	6,471	2,275
257264_AT	AT3G22060	receptor protein kinase-related	3,666	21,32	21,49	4,168	2,375
256576_AT	AT3G28210	zinc finger (AN1-like) family protein	3,839	9,411	19,46	2,751	2,09
252511_AT	AT3G46280	protein kinase-related	3,378	362	213,1	5,741	20,56
252368_AT	AT3G48520	cytochrome P450 family protein	11,8	4,639	3,879	2,217	2,049
251895_AT	AT3G54420	class IV chitinase (CHIV)	2,766	23,5	14,29	5,661	2,946
255595_AT	AT4G01700	chitinase, putative	2,015	22,49	25,53	4,975	2,073
254832_AT	AT4G12490	protease inhibitor/seed storage/lipid transfer protein (LTP) family protein	9,677	39,79	35,61	4,139	7,896
254819_AT	AT4G12500	protease inhibitor/seed storage/lipid transfer protein (LTP) family protein	13,09	207,9	223,2	6,788	5,979
245317_AT	AT4G15610	integral membrane family protein	3,824	8,724	8,84	2,285	2,384
254447_AT	AT4G20860	FAD-binding domain-containing protein	4,108	34,25	31,29	6,31	2,491
254453_AT	AT4G21120	amino acid permease family protein	2,213	20,51	21,69	2,379	2,266
253181_AT	AT4G35180	amino acid transporter family protein	2,619	71,25	63,56	5,189	5,196
252984_AT	AT4G37990	mannitol dehydrogenase, putative (ELI3-2)	14,64	17,22	13,85	4,021	3,396
245181_AT	AT5G12420	expressed protein	2,563	16,6	11,25	3,981	2,431
246858_AT	AT5G25930	leucine-rich repeat family protein / protein kinase family protein	2,405	7,753	20,75	9,389	2,346

248611_AT	AT5G49520	WRKY family transcription factor	2,292	12,84	19,83	2,904	2,145
248551_AT	AT5G50200	expressed protein	2,27	16,32	12,58	2,168	2,054
248332_AT	AT5G52640	heat shock protein 81-1 (HSP81-1) / heat shock protein 83 (HSP83)	5,787	3,21	6,769	4,024	2,003
247492_AT	AT5G61890	AP2 domain-containing transcription factor family protein	2,526	12,25	11,37	6,71	2,381
247327_AT	AT5G64120	peroxidase, putative	4,328	25,5	26,65	3,276	3,025