

## S2 Table Isoforms were annotated with Swiss-Prot database

Gene_id	Blast	swiss prot
XLOC_0000sp	COLGT6	EFR_ARATH LRR receptor-like serine/threonine-protein kinase EFR OS=Arabidopsis thaliana GN=EFR PE=1 SV=1//4
XLOC_0000	---	---
XLOC_0000	---	---
XLOC_0001sp	Q9FJ11	AAK6_ARATH Adenylate kinase isoenzyme 6 OS=Arabidopsis thaliana GN=AAK6 PE=1 SV=1//1.93463e-75
XLOC_0001sp	Q08069	RS8_MAIZE 40S ribosomal protein S8 OS=Zea mays GN=RPS8 PE=2 SV=2//1.12816e-116
XLOC_0001sp	Q93ZB9	FACR3_ARATH Fatty acyl-CoA reductase 3 OS=Arabidopsis thaliana GN=FAR3 PE=2 SV=1//1.43466e-76
XLOC_0001sp	Q9ZVI6	LOR8_ARATH Protein LURP-one-related 8 OS=Arabidopsis thaliana GN=At2g38640 PE=2 SV=1//1.95763e-59
XLOC_0002sp	P04323	POL3_DROME Retrovirus-related Pol polyprotein from transposon 17.6 OS=Drosophila melanogaster GN=pol PE=4 S
XLOC_0002	---	---
XLOC_0002sp	Q9SY75	PPR30_ARATH Putative pentatricopeptide repeat-containing protein At1g10330 OS=Arabidopsis thaliana GN=PCMP-
XLOC_0002sp	Q9SE43	REV_ARATH Homeobox-leucine zipper protein REVOLUTA OS=Arabidopsis thaliana GN=REV PE=1 SV=2//5.87213e-16
XLOC_0002sp	COLGP9	IMK3_ARATH Probable leucine-rich repeat receptor-like protein kinase IMK3 OS=Arabidopsis thaliana GN=IMK3 P
XLOC_0003	---	---
XLOC_0003sp	004350	TBCA_ARATH Tubulin-specific chaperone A OS=Arabidopsis thaliana GN=At2g30410 PE=1 SV=2//3.10261e-23
XLOC_0003sp	Q9SZD5	LRK59_ARATH L-type lectin-domain containing receptor kinase V.9 OS=Arabidopsis thaliana GN=LECRK59 PE=2 SV=
XLOC_0004sp	082500	Y4117_ARATH Putative disease resistance protein At4g11170 OS=Arabidopsis thaliana GN=At4g11170 PE=2 SV=1//6
XLOC_0004sp	Q40392	TMVRN_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//4.85908e-66
XLOC_0004sp	Q40392	TMVRN_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//8.30539e-30
XLOC_0005	---	---
XLOC_0005sp	COLGN2	Y3148_ARATH Probable leucine-rich repeat receptor-like serine/threonine-protein kinase At3g14840 OS=Arabido
XLOC_0005sp	COLGE0	Y1765_ARATH Probable LRR receptor-like serine/threonine-protein kinase At1g07650 OS=Arabidopsis thaliana GN
XLOC_0005sp	065493	XCP1_ARATH Xylem cysteine proteinase 1 OS=Arabidopsis thaliana GN=XCP1 PE=1 SV=1//1.13329e-98
XLOC_0005sp	Q9AUR8	COPA1_ORYSJ Coatomer subunit alpha-1 OS=Oryza sativa subsp. japonica GN=Os03g0711400 PE=2 SV=1//1.41985e-41
XLOC_0005sp	COLGN2	Y3148_ARATH Probable leucine-rich repeat receptor-like serine/threonine-protein kinase At3g14840 OS=Arabido
XLOC_0006sp	Q9H063	MAF1_HUMAN Repressor of RNA polymerase III transcription MAF1 homolog OS=Homo sapiens GN=MAF1 PE=1 SV=2//2.
XLOC_0006sp	Q8GY61	BH063_ARATH Transcription factor bHLH63 OS=Arabidopsis thaliana GN=BHLH63 PE=2 SV=1//2.81342e-21
XLOC_0006	---	---
XLOC_0006	---	---
XLOC_0006sp	P08770	TRA1_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//7.39915e-101
XLOC_0006sp	Q9SX38	DRL4_ARATH Putative disease resistance protein At1g50180 OS=Arabidopsis thaliana GN=At1g50180 PE=2 SV=2//5.
XLOC_0006sp	Q9SX38	DRL4_ARATH Putative disease resistance protein At1g50180 OS=Arabidopsis thaliana GN=At1g50180 PE=2 SV=2//6.
XLOC_0006sp	Q9FID6	Y5392_ARATH Probable receptor-like protein kinase At5g39020 OS=Arabidopsis thaliana GN=At5g39020 PE=2 SV=1/
XLOC_0006sp	Q9LHN8	F6H1_ARATH Feruloyl CoA ortho-hydroxylase 1 OS=Arabidopsis thaliana GN=F6'&H1 PE=1 SV=1//8.40698e-87

XLOC\_0006sp|Q9S7I6|RPK2\_ARATH LRR receptor-like serine/threonine-protein kinase RPK2 OS=Arabidopsis thaliana GN=RPK2 PE=1 SV=1  
XLOC\_0008sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//9.04209e-123  
XLOC\_0008-//  
XLOC\_0008sp|080492|P2C05\_ARATH Probable protein phosphatase 2C 5 OS=Arabidopsis thaliana GN=At1g09160 PE=2 SV=1//2.02849e-112  
XLOC\_0009sp|P93293|M300\_ARATH Uncharacterized mitochondrial protein AtMg00300 OS=Arabidopsis thaliana GN=AtMg00300 PE=4 SV=1//  
XLOC\_0010sp|Q8GXX5|EDL14\_ARATH Sugar transporter ERD6-like 14 OS=Arabidopsis thaliana GN=At4g04750 PE=2 SV=2//3.45616e-13  
XLOC\_0012-//  
XLOC\_0012sp|Q9SQZ9|PITH1\_ARATH PITH domain-containing protein At3g04780 OS=Arabidopsis thaliana GN=At3g04780 PE=1 SV=2//3.5594  
XLOC\_0013sp|Q41387|PSBW\_SPIOL Photosystem II reaction center W protein, chloroplastic OS=Spinacia oleracea GN=psbW PE=1 SV=1//  
XLOC\_0015sp|Q9LYT3|TT12\_ARATH Protein TRANSPARENT TESTA 12 OS=Arabidopsis thaliana GN=TT12 PE=2 SV=1//1.41997e-79  
XLOC\_0015sp|P81392|MYB06\_ANTMA Myb-related protein 306 OS=Antirrhinum majus GN=MYB306 PE=2 SV=1//6.04934e-76  
XLOC\_0017-//  
XLOC\_0017-//  
XLOC\_0018-//  
XLOC\_0020sp|Q08747|UAF30\_YEAST Upstream activation factor subunit UAF30 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288  
XLOC\_0024-//  
XLOC\_0025sp|Q8LB81|GDL79\_ARATH GDSL esterase/lipase At5g33370 OS=Arabidopsis thaliana GN=At5g33370 PE=2 SV=1//0  
XLOC\_0029sp|Q2QNM3|PUS1\_ORYSJ RNA pseudourine synthase 1 OS=Oryza sativa subsp. japonica GN=Os12g0560500 PE=2 SV=1//1.48239e-1  
XLOC\_0032sp|P36907|CHIX\_PEA Endochitinase OS=Pisum sativum PE=2 SV=1//2.67389e-140  
XLOC\_0032sp|Q9LX20|ASPL1\_ARATH Aspartic proteinase-like protein 1 OS=Arabidopsis thaliana GN=At5g10080 PE=1 SV=1//2.39723e-14  
XLOC\_0036-//  
XLOC\_0036-//  
XLOC\_0036-//  
XLOC\_0037-//  
XLOC\_0038sp|P92792|TOM20\_SOLTU Mitochondrial import receptor subunit TOM20 OS=Solanum tuberosum GN=TOM20 PE=1 SV=1//3.52687e-1  
XLOC\_0040sp|P42802|IN01\_CITPA Inositol-3-phosphate synthase OS=Citrus paradisi PE=3 SV=1//9.85967e-104  
XLOC\_0044-//  
XLOC\_0045sp|Q943I6|STOP1\_ORYSJ Zinc finger protein STOP1 homolog OS=Oryza sativa subsp. japonica GN=Os01g0871200 PE=2 SV=1//5.  
XLOC\_0049sp|Q9SVB7|WRK13\_ARATH Probable WRKY transcription factor 13 OS=Arabidopsis thaliana GN=WRKY13 PE=2 SV=1//4.17883e-42  
XLOC\_0053-//  
XLOC\_0054sp|Q93Y94|RPOT1\_NICSY DNA-directed RNA polymerase 1, mitochondrial OS=Nicotiana glauca GN=RPOT1 PE=2 SV=1//1.4229  
XLOC\_0055sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.93543e-31  
XLOC\_0055sp|Q09353|SENP\_CAEEL Sentrin-specific protease OS=Caenorhabditis elegans GN=ulp-1 PE=2 SV=3//1.15447e-10  
XLOC\_0057sp|Q94F47|UBC28\_ARATH Ubiquitin-conjugating enzyme E2 28 OS=Arabidopsis thaliana GN=UBC28 PE=2 SV=1//2.08606e-103  
XLOC\_0057-//

XLOC\_0057sp|Q9LY77|ACA12\_ARATH Calcium-transporting ATPase 12, plasma membrane-type OS=Arabidopsis thaliana GN=ACA12 PE=2 SV=1  
XLOC\_0058sp|Q9LUW0|LOX5\_ARATH Linoleate 9S-lipoxygenase 5, chloroplastic OS=Arabidopsis thaliana GN=LOX5 PE=1 SV=2//1.38067e-9  
XLOC\_0058sp|Q8RXE8|BASS3\_ARATH Probable sodium/metabolite cotransporter BASS3, chloroplastic OS=Arabidopsis thaliana GN=BASS3  
XLOC\_0058sp|P38416|LOXB\_SOLLC Linoleate 9S-lipoxygenase B OS=Solanum lycopersicum GN=LOX1.2 PE=2 SV=1//6.58458e-18  
XLOC\_0058sp|Q6UNT2|RL5\_CUCSA 60S ribosomal protein L5 OS=Cucumis sativus GN=RPL5 PE=2 SV=1//2.03385e-21  
XLOC\_0058sp|Q9ZUW3|PP172\_ARATH Pentatricopeptide repeat-containing protein At2g27610 OS=Arabidopsis thaliana GN=PCMP-H60 PE=2  
XLOC\_0059-/-  
XLOC\_0059sp|Q9LEL6|60MT\_COPJA (RS)-norcoclaurine 6-O-methyltransferase OS=Coptis japonica PE=1 SV=1//8.18996e-11  
XLOC\_0059sp|Q9FL28|FLS2\_ARATH LRR receptor-like serine/threonine-protein kinase FLS2 OS=Arabidopsis thaliana GN=FLS2 PE=1 SV=1  
XLOC\_0059sp|O50003|RL12\_PRUAR 60S ribosomal protein L12 OS=Prunus armeniaca GN=RPL12 PE=2 SV=1//2.10468e-61  
XLOC\_0060sp|Q9SKN5|ARFJ\_ARATH Auxin response factor 10 OS=Arabidopsis thaliana GN=ARF10 PE=2 SV=1//9.0081e-90  
XLOC\_0060-/-  
XLOC\_0060sp|Q9SL29|CNG15\_ARATH Putative cyclic nucleotide-gated ion channel 15 OS=Arabidopsis thaliana GN=CNGC15 PE=2 SV=1//2.  
XLOC\_0060sp|Q9SL29|CNG15\_ARATH Putative cyclic nucleotide-gated ion channel 15 OS=Arabidopsis thaliana GN=CNGC15 PE=2 SV=1//6.  
XLOC\_0060sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//3.21547e-23  
XLOC\_0060sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//9.24308e-43  
XLOC\_0061sp|Q9SZ67|WRK19\_ARATH Probable WRKY transcription factor 19 OS=Arabidopsis thaliana GN=WRKY19 PE=2 SV=1//4.61048e-14  
XLOC\_0061sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//2.05793e-24  
XLOC\_0061-/-  
XLOC\_0061sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//1.44641e-94  
XLOC\_0061sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//1.65526e-11  
XLOC\_0061sp|Q04062|RPN9\_YEAST 26S proteasome regulatory subunit RPN9 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c)  
XLOC\_0062sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//5.00223e-120  
XLOC\_0062-/-  
XLOC\_0062sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//3.10402e-27  
XLOC\_0062sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//9.83  
XLOC\_0063sp|COLGP4|Y3475\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At3g47570 OS=Arabidopsis thaliana GN  
XLOC\_0063sp|Q9FZ59|PEPR2\_ARATH Leucine-rich repeat receptor-like protein kinase PEPR2 OS=Arabidopsis thaliana GN=PEPR2 PE=1 SV  
XLOC\_0063sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//5.99818e-115  
XLOC\_0064-/-  
XLOC\_0064sp|Q9LUC3|MPK19\_ARATH Mitogen-activated protein kinase 19 OS=Arabidopsis thaliana GN=MPK19 PE=2 SV=2//0  
XLOC\_0064sp|Q9LUD7|CAL58\_ARATH Putative callose synthase 8 OS=Arabidopsis thaliana GN=CALS8 PE=2 SV=2//1.95313e-77  
XLOC\_0064-/-  
XLOC\_0065-/-  
XLOC\_0065sp|Q8BG09|T184B\_MOUSE Transmembrane protein 184B OS=Mus musculus GN=Tmem184b PE=2 SV=1//3.80116e-65

XLOC\_0066-/-  
XLOC\_0067-/-  
XLOC\_0068-/-  
XLOC\_0069sp|Q9SAK5|APL\_ARATH Myb family transcription factor APL OS=Arabidopsis thaliana GN=APL PE=2 SV=2//3.25882e-17  
XLOC\_0071-/-  
XLOC\_0074sp|Q9AT00|AB13I\_ARATH Protein TRIGALACTOSYLDIACYLGLYCEROL 3, chloroplastic OS=Arabidopsis thaliana GN=TGD3 PE=1 SV=1/  
XLOC\_0074sp|Q9CSU0|RPR1B\_MOUSE Regulation of nuclear pre-mRNA domain-containing protein 1B OS=Mus musculus GN=Rprd1b PE=1 SV=2  
XLOC\_0074sp|064668|PSNA\_ARATH Presenilin-like protein Atlg08700 OS=Arabidopsis thaliana GN=Atlg08700 PE=2 SV=1//1.44269e-176  
XLOC\_0076sp|P00054|CYC\_SESIN Cytochrome c OS=Sesamum indicum PE=1 SV=1//4.40323e-71  
XLOC\_0081-/-  
XLOC\_0083sp|Q651X6|CSLE6\_ORYSJ Cellulose synthase-like protein E6 OS=Oryza sativa subsp. japonica GN=CSLE6 PE=2 SV=1//2.00798e  
XLOC\_0083sp|P51418|R18A2\_ARATH 60S ribosomal protein L18a-2 OS=Arabidopsis thaliana GN=RPL18AB PE=1 SV=2//2.52381e-46  
XLOC\_0084-/-  
XLOC\_0086sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.35641e-11  
XLOC\_0088sp|Q8GWL2|LOR7\_ARATH Protein LURP-one-related 7 OS=Arabidopsis thaliana GN=At2g30270 PE=2 SV=1//2.40375e-26  
XLOC\_0089sp|Q8VZT0|NLAL1\_ARATH Putative H/ACA ribonucleoprotein complex subunit 1-like protein 1 OS=Arabidopsis thaliana GN=At  
XLOC\_0090sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//3.23  
XLOC\_0091sp|Q7XA86|ZDH11\_ARATH Probable S-acyltransferase At3g51390 OS=Arabidopsis thaliana GN=At3g51390 PE=2 SV=1//3.67563e-1  
XLOC\_0091-/-  
XLOC\_0091-/-  
XLOC\_0091sp|Q35638|RH01\_PEA Rac-like GTP-binding protein RH01 OS=Pisum sativum GN=RH01 PE=2 SV=1//4.76948e-89  
XLOC\_0093sp|Q6FWI1|GYP7\_CANGA GTPase-activating protein GYP7 OS=Candida glabrata (strain ATCC 2001 / CBS 138 / JCM 3761 / NBRC  
XLOC\_0094sp|Q7LHG5|YI31B\_YEAST Transposon Ty3-I Gag-Pol polyprotein OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) G  
XLOC\_0096sp|Q84R21|Y1559\_ARATH DUF21 domain-containing protein Atlg55930, chloroplastic OS=Arabidopsis thaliana GN=CBSDUFCH2 P  
XLOC\_0096sp|Q9LK64|AB3C\_ARATH ABC transporter C family member 3 OS=Arabidopsis thaliana GN=ABCC3 PE=1 SV=1//6.16473e-07  
XLOC\_0096sp|Q9LK64|AB3C\_ARATH ABC transporter C family member 3 OS=Arabidopsis thaliana GN=ABCC3 PE=1 SV=1//6.15934e-09  
XLOC\_0096sp|Q10KF0|PSA2\_ORYSJ Proteasome subunit alpha type-2 OS=Oryza sativa subsp. japonica GN=PAB1 PE=2 SV=1//3.28924e-47  
XLOC\_0096sp|O48923|C71DA\_SOYBN Cytochrome P450 71D10 OS=Glycine max GN=CYP71D10 PE=2 SV=1//3.72293e-117  
XLOC\_0096sp|B6SFA4|MAA3\_ARATH Probable helicase MAGATAMA 3 OS=Arabidopsis thaliana GN=MAA3 PE=2 SV=1//1.12561e-07  
XLOC\_0097-/-  
XLOC\_0097-/-  
XLOC\_0097-/-  
XLOC\_0102sp|Q8S1Z1|UTP11\_ORYSJ Probable U3 small nucleolar RNA-associated protein 11 OS=Oryza sativa subsp. japonica GN=Os01g0  
XLOC\_0102sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//9.93  
XLOC\_0106-/-

XLOC\_0106-//-

XLOC\_0106sp|Q9SXA1|P4KA1\_ARATH Phosphatidylinositol 4-kinase alpha OS=Arabidopsis thaliana GN=PI4KALPHA1 PE=1 SV=2//8.35573e-2

XLOC\_0108sp|Q10137|SEC14\_SCHPO Sec14 cytosolic factor OS=Schizosaccharomyces pombe (strain 972 / ATCC 24843) GN=sec14 PE=2 SV=

XLOC\_0108sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.13

XLOC\_0110sp|Q9XIQ7|FBT7\_ARATH Probable folate-biopterin transporter 7 OS=Arabidopsis thaliana GN=Atlg64890 PE=2 SV=1//1.76642e

XLOC\_0111sp|Q9C104|GDE1\_SCHPO Glycerophosphodiester phosphodiesterase gde1 OS=Schizosaccharomyces pombe (strain 972 / ATCC 248

XLOC\_0112sp|P27572|NU4M\_WHEAT NADH-ubiquinone oxidoreductase chain 4 OS=Triticum aestivum GN=ND4 PE=2 SV=2//2.1306e-32

XLOC\_0113-//-

XLOC\_0113sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//5.58841e-96

XLOC\_0114sp|Q8L7H1|FBL75\_ARATH F-box/LRR-repeat protein At4g14103 OS=Arabidopsis thaliana GN=At4g14103 PE=2 SV=1//1.87904e-29

XLOC\_0115-//-

XLOC\_0120sp|P83877|TXN4A\_MOUSE Thioredoxin-like protein 4A OS=Mus musculus GN=Txnl4a PE=2 SV=1//8.77141e-14

XLOC\_0121sp|Q8GWPO|MYB39\_ARATH Transcription factor MYB39 OS=Arabidopsis thaliana GN=MYB39 PE=2 SV=1//3.76479e-50

XLOC\_0122sp|Q2L8Y7|RR16\_GOSHI 30S ribosomal protein S16, chloroplastic OS=Gossypium hirsutum GN=rps16 PE=3 SV=1//9.73126e-38

XLOC\_0126sp|O64702|HMG14\_ARATH High mobility group B protein 14 OS=Arabidopsis thaliana GN=HMGB14 PE=2 SV=2//9.85449e-07

XLOC\_0126sp|P04323|POL3\_DROME Retrovirus-related Pol polyprotein from transposon 17.6 OS=Drosophila melanogaster GN=pol PE=4 S

XLOC\_0127sp|Q9FVC1|SVP\_ARATH MADS-box protein SVP OS=Arabidopsis thaliana GN=SVP PE=1 SV=1//9.41402e-13

XLOC\_0127-//-

XLOC\_0127sp|O82244|ALG3\_ARATH Dol-P-Man:Man(5)GlcNAc(2)-PP-Dol alpha-1,3-mannosyltransferase OS=Arabidopsis thaliana GN=ALG3 P

XLOC\_0127-//-

XLOC\_0130sp|Q05654|RTF21\_SCHPO Retrotransposable element Tf2 155 kDa protein type 1 OS=Schizosaccharomyces pombe (strain 972 /

XLOC\_0131sp|Q6R2J8|SRF8\_ARATH Protein STRUBBELIG-RECEPTOR FAMILY 8 OS=Arabidopsis thaliana GN=SRF8 PE=2 SV=1//5.00937e-61

XLOC\_0135sp|P93306|NDUS2\_ARATH NADH dehydrogenase [ubiquinone] iron-sulfur protein 2 OS=Arabidopsis thaliana GN=NAD7 PE=1 SV=2

XLOC\_0135sp|P14680|YAK1\_YEAST Dual specificity protein kinase YAK1 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN

XLOC\_0135sp|O65351|SUBL\_ARATH Subtilisin-like protease OS=Arabidopsis thaliana GN=ARA12 PE=1 SV=1//1.40332e-07

XLOC\_0136sp|Q9C5H6|CSTR3\_ARATH CMP-sialic acid transporter 3 OS=Arabidopsis thaliana GN=UTR6 PE=2 SV=1//1.61448e-21

XLOC\_0137-//-

XLOC\_0138-//-

XLOC\_0141-//-

XLOC\_0142sp|Q8LBV4|Y1814\_ARATH Uncharacterized methyltransferase Atlg78140, chloroplastic OS=Arabidopsis thaliana GN=Atlg78140

XLOC\_0144-//-

XLOC\_0147sp|O80366|ARR9\_ARATH Two-component response regulator ARR9 OS=Arabidopsis thaliana GN=ARR9 PE=1 SV=1//1.43635e-12

XLOC\_0148sp|Q0INZ4|SPS3\_ORYSJ Probable solanesyl-diphosphate synthase 3, chloroplastic (Fragment) OS=Oryza sativa subsp. japon

XLOC\_0149sp|Q949Y3|PPA26\_ARATH Bifunctional purple acid phosphatase 26 OS=Arabidopsis thaliana GN=PAP26 PE=1 SV=1//2.19659e-13

XLOC\_0149sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.87459e-75

XLOC\_0150-/-

XLOC\_0151sp|P53632|PAP2\_YEAST Poly(A) RNA polymerase protein 2 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=PAP

XLOC\_0152sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//2.201

XLOC\_0152sp|Q6NQK2|NAC8\_ARATH NAC domain-containing protein 8 OS=Arabidopsis thaliana GN=NAC008 PE=2 SV=1//5.70739e-68

XLOC\_0153-/-

XLOC\_0154sp|Q6DBP8|GAT11\_ARATH GATA transcription factor 11 OS=Arabidopsis thaliana GN=GATA11 PE=2 SV=1//1.32204e-46

XLOC\_0154sp|Q9SKN3|CSPL6\_ARATH CASP-like protein At2g28370 OS=Arabidopsis thaliana GN=At2g28370 PE=2 SV=1//6.21616e-85

XLOC\_0154sp|Q6K215|PIP22\_ORYSJ Probable aquaporin PIP2-2 OS=Oryza sativa subsp. japonica GN=PIP2-2 PE=2 SV=1//5.1345e-157

XLOC\_0154sp|F4K0E8|ISPG\_ARATH 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase, chloroplastic OS=Arabidopsis thaliana GN=I

XLOC\_0154sp|Q10N21|APX1\_ORYSJ L-ascorbate peroxidase 1, cytosolic OS=Oryza sativa subsp. japonica GN=APX1 PE=1 SV=1//1.23177e-

XLOC\_0154sp|Q6ZRS2|SRCAP\_HUMAN Helicase SRCAP OS=Homo sapiens GN=SRCAP PE=1 SV=3//2.0933e-11

XLOC\_0154sp|Q6ICB0|DESI1\_HUMAN Desumoylating isopeptidase 1 OS=Homo sapiens GN=DESI1 PE=1 SV=1//2.40015e-11

XLOC\_0158sp|Q9SSQ4|FRS6\_ARATH Protein FAR1-RELATED SEQUENCE 6 OS=Arabidopsis thaliana GN=FRS6 PE=2 SV=1//0

XLOC\_0158sp|Q9LJI5|VAOD1\_ARATH V-type proton ATPase subunit d1 OS=Arabidopsis thaliana GN=VHA-D1 PE=2 SV=1//4.53314e-11

XLOC\_0160sp|Q9SSB8|CX5B2\_ARATH Cytochrome c oxidase subunit 5b-2, mitochondrial OS=Arabidopsis thaliana GN=COX5B-2 PE=2 SV=1//

XLOC\_0160sp|Q9SJJ5|CKS2\_ARATH Cyclin-dependent kinases regulatory subunit 2 OS=Arabidopsis thaliana GN=CKS2 PE=2 SV=1//2.93914

XLOC\_0160-/-

XLOC\_0163-/-

XLOC\_0163sp|Q6NPP4|CMTA2\_ARATH Calmodulin-binding transcription activator 2 OS=Arabidopsis thaliana GN=CMTA2 PE=1 SV=1//6.0023

XLOC\_0166sp|Q9SJA6|RZ22A\_ARATH Serine/arginine-rich splicing factor RSZ22A OS=Arabidopsis thaliana GN=RSZ22A PE=1 SV=1//2.1979

XLOC\_0168sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.10553e-14

XLOC\_0171sp|P34756|FAB1\_YEAST 1-phosphatidylinositol 3-phosphate 5-kinase FAB1 OS=Saccharomyces cerevisiae (strain ATCC 204508

XLOC\_0171-/-

XLOC\_0171-/-

XLOC\_0172sp|Q93VA3|CYC6\_ARATH Cytochrome c6, chloroplastic OS=Arabidopsis thaliana GN=petJ PE=1 SV=1//5.53018e-16

XLOC\_0172sp|Q9SA16|P2A09\_ARATH Protein PHLOEM PROTEIN 2-LIKE A9 OS=Arabidopsis thaliana GN=PP2A9 PE=2 SV=1//6.87214e-28

XLOC\_0172-/-

XLOC\_0174sp|Q8LB81|GDL79\_ARATH GDSL esterase/lipase At5g33370 OS=Arabidopsis thaliana GN=At5g33370 PE=2 SV=1//0

XLOC\_0176sp|Q9P281|BAHC1\_HUMAN BAH and coiled-coil domain-containing protein 1 OS=Homo sapiens GN=BAHCC1 PE=1 SV=3//1.37074e-1

XLOC\_0176sp|Q9C7B1|TRP3\_ARATH Telomere repeat-binding protein 3 OS=Arabidopsis thaliana GN=TRP3 PE=1 SV=1//2.50916e-125

XLOC\_0179-/-

XLOC\_0183sp|Q9LU10|DEGP8\_ARATH Protease Do-like 8, chloroplastic OS=Arabidopsis thaliana GN=DEGP8 PE=1 SV=1//3.89639e-06

XLOC\_0186sp|Q4FTX1|NDK\_PSYA2 Nucleoside diphosphate kinase OS=Psychrobacter arcticus (strain DSM 17307 / 273-4) GN=ndk PE=3 SV

XLOC\_0186sp|Q9ZPB7|AL7A1\_MALDO Aldehyde dehydrogenase family 7 member A1 OS=Malus domestica PE=1 SV=3//2.14056e-89

XLOC\_0193sp|POC5D6|SAPK3\_ORYSJ Serine/threonine-protein kinase SAPK3 OS=Oryza sativa subsp. japonica GN=SAPK3 PE=1 SV=1//6.790

XLOC\_0195sp|Q9FLQ7|FH20\_ARATH Formin-like protein 20 OS=Arabidopsis thaliana GN=FH20 PE=2 SV=3//3.78298e-13  
XLOC\_0196sp|Q9ASQ5|CRCK3\_ARATH Calmodulin-binding receptor-like cytoplasmic kinase 3 OS=Arabidopsis thaliana GN=CRCK3 PE=2 SV=  
XLOC\_0196sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.01712e-74  
XLOC\_0197sp|Q2L942|RR8\_GOSHI 30S ribosomal protein S8, chloroplastic OS=Gossypium hirsutum GN=rps8 PE=3 SV=1//1.57751e-23  
XLOC\_0202sp|COLGV0|Y5487\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At5g48740 OS=Arabidopsis thaliana GN=  
XLOC\_0202sp|Q9FKB5|KRP3\_ARATH Cyclin-dependent kinase inhibitor 3 OS=Arabidopsis thaliana GN=KRP3 PE=1 SV=1//9.97715e-45  
XLOC\_0202sp|Q8VWQ5|WRK50\_ARATH Probable WRKY transcription factor 50 OS=Arabidopsis thaliana GN=WRKY50 PE=2 SV=1//2.56476e-40  
XLOC\_0207-/-  
XLOC\_0211-/-  
XLOC\_0211-/-  
XLOC\_0213sp|Q42202|RL40B\_ARATH Ubiquitin-60S ribosomal protein L40-2 OS=Arabidopsis thaliana GN=RPL40B PE=1 SV=2//8.45941e-13  
XLOC\_0213sp|P69326|UBIQ\_WHEAT Ubiquitin OS=Triticum aestivum PE=3 SV=2//4.55546e-36  
XLOC\_0213-/-  
XLOC\_0213sp|O24160|TGA21\_TOBAC TGACG-sequence-specific DNA-binding protein TGA-2.1 OS=Nicotiana tabacum GN=TGA21 PE=1 SV=1//2.  
XLOC\_0215-/-  
XLOC\_0217-/-  
XLOC\_0219sp|P17642|PRS2\_SOLTU Pathogenesis-related protein STH-2 OS=Solanum tuberosum GN=STH-2 PE=2 SV=1//8.24309e-41  
XLOC\_0219sp|P15494|BEV1A\_BETPN Major pollen allergen Bet v 1-A OS=Betula pendula GN=BETVIA PE=1 SV=2//9.50573e-47  
XLOC\_0220sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.57  
XLOC\_0220-/-  
XLOC\_0222-/-  
XLOC\_0222sp|Q93Y94|RPOT1\_NICSY DNA-directed RNA polymerase 1, mitochondrial OS=Nicotiana sylvestris GN=RPOT1 PE=2 SV=1//3.9627  
XLOC\_0225sp|Q9FN48|CAS\_ARATH Calcium sensing receptor, chloroplastic OS=Arabidopsis thaliana GN=CAS PE=1 SV=1//1.58101e-11  
XLOC\_0225-/-  
XLOC\_0225sp|P46299|RS4\_GOSHI 40S ribosomal protein S4 OS=Gossypium hirsutum GN=RPS4 PE=2 SV=1//6.46481e-166  
XLOC\_0225sp|P27054|CHI4\_PHAVU Endochitinase PR4 OS=Phaseolus vulgaris GN=CHI4 PE=2 SV=1//2.47633e-90  
XLOC\_0225sp|Q8LRK9|TAF1A\_ARATH Transcription initiation factor TFIID subunit 1-A OS=Arabidopsis thaliana GN=HAF1 PE=2 SV=1//7.  
XLOC\_0226sp|Q8LRK9|TAF1A\_ARATH Transcription initiation factor TFIID subunit 1-A OS=Arabidopsis thaliana GN=HAF1 PE=2 SV=1//4.  
XLOC\_0226sp|Q8LRK9|TAF1A\_ARATH Transcription initiation factor TFIID subunit 1-A OS=Arabidopsis thaliana GN=HAF1 PE=2 SV=1//1.  
XLOC\_0226sp|COLGQ5|GS01\_ARATH LRR receptor-like serine/threonine-protein kinase GS01 OS=Arabidopsis thaliana GN=GS01 PE=2 SV=1  
XLOC\_0226sp|Q9LFN6|RH56\_ARATH DEAD-box ATP-dependent RNA helicase 56 OS=Arabidopsis thaliana GN=RH56 PE=2 SV=2//3.01242e-10  
XLOC\_0226sp|Q9LFP7|Y5158\_ARATH Probable receptor-like protein kinase At5g15080 OS=Arabidopsis thaliana GN=At5g15080 PE=1 SV=1/  
XLOC\_0228sp|Q54Y55|SHKC\_DICDI Dual specificity protein kinase shkC OS=Dictyostelium discoideum GN=shkC PE=3 SV=1//7.79749e-37  
XLOC\_0229-/-  
XLOC\_0230-/-

XLOC\_0235sp|065351|SUBL\_ARATH Subtilisin-like protease OS=Arabidopsis thaliana GN=ARA12 PE=1 SV=1//0  
XLOC\_0235-/-  
XLOC\_0236sp|Q10295|PAP\_SCHPO Poly(A) polymerase plal OS=Schizosaccharomyces pombe (strain 972 / ATCC 24843) GN=plal PE=2 SV=1/  
XLOC\_0238-/-  
XLOC\_0242-/-  
XLOC\_0243sp|P40035|PIC2\_YEAST Mitochondrial phosphate carrier protein 2 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288  
XLOC\_0244sp|Q9LUV2|POP3\_ARATH Probable protein Pop3 OS=Arabidopsis thaliana GN=At3g17210 PE=1 SV=1//4.8782e-59  
XLOC\_0246sp|P68428|H32\_WHEAT Histone H3.2 OS=Triticum aestivum PE=1 SV=2//4.91541e-76  
XLOC\_0252sp|O64702|HMG14\_ARATH High mobility group B protein 14 OS=Arabidopsis thaliana GN=HMGB14 PE=2 SV=2//1.70311e-10  
XLOC\_0256-/-  
XLOC\_0258sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=Oryza sativa subsp  
XLOC\_0260-/-  
XLOC\_0260-/-  
XLOC\_0261-/-  
XLOC\_0262-/-  
XLOC\_0263sp|Q6EIK6|MATK\_GOSHI Maturase K OS=Gossypium hirsutum GN=matK PE=3 SV=1//1.4413e-35  
XLOC\_0264sp|Q8I7P9|POL5\_DROME Retrovirus-related Pol polyprotein from transposon opus OS=Drosophila melanogaster GN=pol PE=4 S  
XLOC\_0265-/-  
XLOC\_0267sp|Q9C9K2|CP123\_ARATH Calvin cycle protein CP12-3, chloroplastic OS=Arabidopsis thaliana GN=CP12-3 PE=1 SV=1//2.23622  
XLOC\_0269sp|Q8LEM8|RL373\_ARATH 60S ribosomal protein L37-3 OS=Arabidopsis thaliana GN=RPL37C PE=3 SV=1//7.81384e-16  
XLOC\_0271sp|Q5QM99|RL37A\_ORYSJ 60S ribosomal protein L37a OS=Oryza sativa subsp. japonica GN=Os01g0679700 PE=1 SV=1//2.8407e-5  
XLOC\_0271sp|P83877|TXN4A\_MOUSE Thioredoxin-like protein 4A OS=Mus musculus GN=Txnl4a PE=2 SV=1//1.38332e-17  
XLOC\_0273sp|Q9LSP9|CTL2\_ARATH Chitinase-like protein 2 OS=Arabidopsis thaliana GN=CTL2 PE=2 SV=1//0  
XLOC\_0273sp|O04834|SAR1A\_ARATH GTP-binding protein SAR1A OS=Arabidopsis thaliana GN=SAR1A PE=2 SV=1//2.95388e-107  
XLOC\_0273sp|Q9S746|HTH\_ARATH Protein HOTHREAD OS=Arabidopsis thaliana GN=HTH PE=1 SV=1//3.04061e-160  
XLOC\_0273-/-  
XLOC\_0274sp|Q9SY66|FRS11\_ARATH Protein FAR1-RELATED SEQUENCE 11 OS=Arabidopsis thaliana GN=FRS11 PE=2 SV=1//4.97896e-97  
XLOC\_0274sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.02  
XLOC\_0275-/-  
XLOC\_0276sp|Q2L907|PSAA\_GOSHI Photosystem I P700 chlorophyll a apoprotein A1 OS=Gossypium hirsutum GN=psaA PE=3 SV=1//8.50313e  
XLOC\_0276sp|Q8S403|PHO1\_ARATH Phosphate transporter PHO1 OS=Arabidopsis thaliana GN=PHO1 PE=2 SV=1//1.37852e-36  
XLOC\_0279-/-  
XLOC\_0279-/-  
XLOC\_0280-/-  
XLOC\_0280sp|Q9FFF9|APC1\_ARATH Anaphase-promoting complex subunit 1 OS=Arabidopsis thaliana GN=APC1 PE=2 SV=1//1.0753e-08



XLOC\_0280-/-  
XLOC\_0283sp|Q54XK2|SC61A\_DICDI Protein transport protein Sec61 subunit alpha OS=Dictyostelium discoideum GN=sec61a PE=3 SV=1//  
XLOC\_0287-/-  
XLOC\_0289sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.09  
XLOC\_0289sp|Q9M7Q4|AI5L5\_ARATH ABSCISIC ACID-INSENSITIVE 5-like protein 5 OS=Arabidopsis thaliana GN=ABF2 PE=1 SV=1//6.56748e-  
XLOC\_0291-/-  
XLOC\_0293sp|Q9S6Z8|TPK5\_ARATH Two-pore potassium channel 5 OS=Arabidopsis thaliana GN=TPK5 PE=1 SV=1//1.10341e-08  
XLOC\_0294-/-  
XLOC\_0296sp|P04146|COPIA\_DROME Copia protein OS=Drosophila melanogaster GN=GIP PE=1 SV=3//5.55786e-28  
XLOC\_0297sp|Q9SSQ4|FRS6\_ARATH Protein FAR1-RELATED SEQUENCE 6 OS=Arabidopsis thaliana GN=FRS6 PE=2 SV=1//0  
XLOC\_0297sp|Q940Z2|ARP5\_ARATH Actin-related protein 5 OS=Arabidopsis thaliana GN=ARP5 PE=1 SV=2//0  
XLOC\_0299-/-  
XLOC\_0299sp|Q93YW0|EXEC1\_ARATH Protein EXECUTER 1, chloroplastic OS=Arabidopsis thaliana GN=EX1 PE=1 SV=1//3.30948e-32  
XLOC\_0302-/-  
XLOC\_0302-/-  
XLOC\_0305-/-  
XLOC\_0305sp|Q58E77|WD82B\_XENLA WD repeat-containing protein 82-B OS=Xenopus laevis GN=wdr82-b PE=2 SV=1//8.01641e-37  
XLOC\_0306sp|Q8GUM5|NICA\_ARATH Nicastrin OS=Arabidopsis thaliana GN=At3g52640/At3g52650 PE=2 SV=1//2.05084e-09  
XLOC\_0306sp|Q0ZIW7|PSAC\_VITVI Photosystem I iron-sulfur center OS=Vitis vinifera GN=psaC PE=3 SV=1//1.30027e-39  
XLOC\_0309sp|Q2L955|NU4C\_GOSHI NAD(P)H-quinone oxidoreductase chain 4, chloroplastic OS=Gossypium hirsutum GN=ndhD PE=3 SV=1//2  
XLOC\_0310sp|BOBN95|HARB1\_RAT Putative nuclease HARB1 OS=Rattus norvegicus GN=Harbi1 PE=2 SV=1//7.26925e-18  
XLOC\_0311-/-  
XLOC\_0311sp|P31843|RRPO\_OENBE RNA-directed DNA polymerase homolog OS=Oenothera berteriana PE=4 SV=1//6.7319e-36  
XLOC\_0312sp|Q8GWS0|GRXC5\_ARATH Glutaredoxin-C5, chloroplastic OS=Arabidopsis thaliana GN=GRXC5 PE=1 SV=1//2.46157e-10  
XLOC\_0312sp|Q9LJ98|PFD2\_ARATH Probable prefoldin subunit 2 OS=Arabidopsis thaliana GN=At3g22480 PE=2 SV=1//5.07663e-64  
XLOC\_0314sp|P93293|M300\_ARATH Uncharacterized mitochondrial protein AtMg00300 OS=Arabidopsis thaliana GN=AtMg00300 PE=4 SV=1//  
XLOC\_0315sp|Q56X72|RTNLS\_ARATH Reticulon-like protein B21 OS=Arabidopsis thaliana GN=RTNLB21 PE=2 SV=2//1.52223e-28  
XLOC\_0315sp|O49434|AAH\_ARATH Allantoate deiminase, chloroplastic OS=Arabidopsis thaliana GN=AAH PE=1 SV=2//2.03219e-22  
XLOC\_0316sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//6.21  
XLOC\_0317sp|Q2MHE4|HT1\_ARATH Serine/threonine-protein kinase HT1 OS=Arabidopsis thaliana GN=HT1 PE=1 SV=1//9.50234e-17  
XLOC\_0317sp|Q84JCO|RRP8\_ARATH Ribosomal RNA-processing protein 8 OS=Arabidopsis thaliana GN=At5g40530 PE=2 SV=1//9.18233e-13  
XLOC\_0320sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.70  
XLOC\_0320-/-  
XLOC\_0322sp|Q8GW72|FUCO1\_ARATH Alpha-L-fucosidase 1 OS=Arabidopsis thaliana GN=FUC1 PE=1 SV=2//0  
XLOC\_0322sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.11

XLOC\_0324sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.61485e-10  
XLOC\_0331-//-  
XLOC\_0331sp|P35685|RL7A\_ORYSJ 60S ribosomal protein L7a OS=Oryza sativa subsp. japonica GN=RPL7A PE=2 SV=1//1.18605e-16  
XLOC\_0332-//-  
XLOC\_0334sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.08  
XLOC\_0336sp|Q9LU60|PUS7\_ARATH RNA pseudourine synthase 7 OS=Arabidopsis thaliana GN=At5g51140 PE=2 SV=1//8.65973e-19  
XLOC\_0336sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.99  
XLOC\_0338-//-  
XLOC\_0340-//-  
XLOC\_0340sp|Q55BK0|UFD1\_DICDI Ubiquitin fusion degradation protein 1 homolog OS=Dictyostelium discoideum GN=ufd1 PE=3 SV=1//2.  
XLOC\_0343-//-  
XLOC\_0343sp|Q0WM29|MMSA\_ARATH Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial OS=Arabidopsis thaliana GN=  
XLOC\_0344-//-  
XLOC\_0349-//-  
XLOC\_0349sp|P48578|PP2A3\_ARATH Serine/threonine-protein phosphatase PP2A-3 catalytic subunit OS=Arabidopsis thaliana GN=PP2A3  
XLOC\_0350sp|Q653P0|KOR1\_ORYSJ Potassium channel KOR1 OS=Oryza sativa subsp. japonica GN=Os06g0250600 PE=2 SV=1//7.1831e-41  
XLOC\_0353-//-  
XLOC\_0354sp|Q9LDX3|UTR4\_ARATH UDP-galactose/UDP-glucose transporter 4 OS=Arabidopsis thaliana GN=UTR4 PE=2 SV=1//1.41886e-69  
XLOC\_0357sp|Q9MAK9|PS10B\_ARATH 26S protease regulatory subunit S10B homolog B OS=Arabidopsis thaliana GN=RPT4B PE=2 SV=1//1.90  
XLOC\_0357sp|P24280|SEC14\_YEAST SEC14 cytosolic factor OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=SEC14 PE=1 S  
XLOC\_0358sp|Q40170|AGL8\_SOLLC Agamous-like MADS-box protein AGL8 homolog OS=Solanum lycopersicum GN=TDR4 PE=2 SV=1//4.13451e-4  
XLOC\_0359sp|Q05654|RTF21\_SCHPO Retrotransposable element Tf2 155 kDa protein type 1 OS=Schizosaccharomyces pombe (strain 972 /  
XLOC\_0359-//-  
XLOC\_0360sp|P60498|NU6M\_BRACM NADH-ubiquinone oxidoreductase chain 6 OS=Brassica campestris GN=ND6 PE=2 SV=1//2.21798e-124  
XLOC\_0361-//-  
XLOC\_0364-//-  
XLOC\_0367sp|Q8L8B8|LOG3\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG3 OS=Arabidopsis thaliana GN=LC  
XLOC\_0367sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.27  
XLOC\_0371-//-  
XLOC\_0375sp|P27489|CB23\_SOLLC Chlorophyll a-b binding protein 13, chloroplastic OS=Solanum lycopersicum GN=CAB13 PE=1 SV=1//2.  
XLOC\_0375sp|O96860|DYL2\_DROME Dynein light chain 2, cytoplasmic OS=Drosophila melanogaster GN=Cd1c2 PE=3 SV=1//8.33801e-23  
XLOC\_0377-//-  
XLOC\_0378-//-  
XLOC\_0378sp|Q9SXD8|PPR90\_ARATH Pentatricopeptide repeat-containing protein At1g62590 OS=Arabidopsis thaliana GN=At1g62590 PE=2  
XLOC\_0379-//-

XLOC\_0384-/-  
XLOC\_0385sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.13  
XLOC\_0385sp|F4KD71|DUR3\_ARATH Urea-proton symporter DUR3 OS=Arabidopsis thaliana GN=DUR3 PE=1 SV=1//9.59264e-11  
XLOC\_0390-/-  
XLOC\_0395sp|023145|KSG2\_ARATH Shaggy-related protein kinase beta OS=Arabidopsis thaliana GN=ASK2 PE=2 SV=1//1.07425e-23  
XLOC\_0395-/-  
XLOC\_0395sp|P93740|NUD23\_ARATH Nudix hydrolase 23, chloroplastic OS=Arabidopsis thaliana GN=NUDT23 PE=1 SV=2//7.89041e-15  
XLOC\_0398-/-  
XLOC\_0399-/-  
XLOC\_0400sp|Q93YW0|EXEC1\_ARATH Protein EXECUTER 1, chloroplastic OS=Arabidopsis thaliana GN=EX1 PE=1 SV=1//2.04744e-12  
XLOC\_0408sp|Q39231|SUC2\_ARATH Sucrose transport protein SUC2 OS=Arabidopsis thaliana GN=SUC2 PE=1 SV=2//1.69072e-29  
XLOC\_0412sp|Q9FJK3|AGL80\_ARATH Agamous-like MADS-box protein AGL80 OS=Arabidopsis thaliana GN=AGL80 PE=1 SV=1//1.63005e-21  
XLOC\_0414sp|Q9M9M6|NDUS6\_ARATH NADH dehydrogenase [ubiquinone] iron-sulfur protein 6, mitochondrial OS=Arabidopsis thaliana GN  
XLOC\_0414-/-  
XLOC\_0417sp|Q9M291|SC24C\_ARATH Protein transport protein Sec24-like CEF OS=Arabidopsis thaliana GN=CEF PE=1 SV=3//1.53926e-36  
XLOC\_0417sp|Q9M081|SC24B\_ARATH Protein transport protein Sec24-like At4g32640 OS=Arabidopsis thaliana GN=At4g32640 PE=1 SV=3//  
XLOC\_0417sp|Q2RAX3|CIPKX\_ORYSJ CBL-interacting protein kinase 33 OS=Oryza sativa subsp. japonica GN=CIPK33 PE=2 SV=1//2.98606e  
XLOC\_0421sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.72  
XLOC\_0422sp|Q8H5T6|LTI6A\_ORYSJ Hydrophobic protein LTI6A OS=Oryza sativa subsp. japonica GN=LTI6A PE=2 SV=1//8.6772e-07  
XLOC\_0422-/-  
XLOC\_0422-/-  
XLOC\_0422sp|Q0IQN5|RTOR1\_ORYSJ Regulatory-associated protein of TOR 1 OS=Oryza sativa subsp. japonica GN=RAPTOR1 PE=2 SV=2//3.  
XLOC\_0422-/-  
XLOC\_0424-/-  
XLOC\_0425-/-  
XLOC\_0425sp|Q42429|AGL8\_SOLTU Agamous-like MADS-box protein AGL8 homolog OS=Solanum tuberosum PE=2 SV=1//3.14775e-07  
XLOC\_0429sp|Q9LKR4|FRS10\_ARATH Putative protein FAR1-RELATED SEQUENCE 10 OS=Arabidopsis thaliana GN=FRS10 PE=2 SV=2//0  
XLOC\_0430sp|C7G304|GOLS2\_SOLLC Galactinol synthase 2 OS=Solanum lycopersicum GN=GOLS2 PE=2 SV=1//8.83671e-172  
XLOC\_0430-/-  
XLOC\_0430-/-  
XLOC\_0433-/-  
XLOC\_0437-/-  
XLOC\_0440sp|Q6R8G7|PH013\_ARATH Phosphate transporter PH01 homolog 3 OS=Arabidopsis thaliana GN=PH01;H3 PE=2 SV=2//1.61269e-08  
XLOC\_0441sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//0  
XLOC\_0443sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.85368e-21

XLOC\_0443sp|Q2PGG3|SRR\_ARATH Serine racemase OS=Arabidopsis thaliana GN=SR PE=1 SV=1//1.01096e-12  
XLOC\_0443sp|Q2L942|RR8\_GOSHI 30S ribosomal protein S8, chloroplastic OS=Gossypium hirsutum GN=rps8 PE=3 SV=1//1.56745e-24  
XLOC\_0444-//  
XLOC\_0447sp|P93398|GBB2\_TOBAC Guanine nucleotide-binding protein subunit beta-2 OS=Nicotiana tabacum PE=2 SV=1//0  
XLOC\_0447sp|Q9LS94|RAG3F\_ARATH Ras-related protein RABG3f OS=Arabidopsis thaliana GN=RABG3F PE=2 SV=1//1.22313e-21  
XLOC\_0447sp|Q75HP9|AKT2\_ORYSJ Potassium channel AKT2 OS=Oryza sativa subsp. japonica GN=Os05g0428700 PE=2 SV=1//7.55758e-76  
XLOC\_0448sp|Q9C952|CPSF3\_ARATH Cleavage and polyadenylation specificity factor subunit 3-I OS=Arabidopsis thaliana GN=CPSF73-I  
XLOC\_0448sp|Q8W3M7|Y4598\_ARATH Uncharacterized protein At4g06598 OS=Arabidopsis thaliana GN=At4g06598 PE=2 SV=2//1.19525e-41  
XLOC\_0448-//  
XLOC\_0449-//  
XLOC\_0453-//  
XLOC\_0454sp|Q9LDW3|PUM11\_ARATH Pumilio homolog 11 OS=Arabidopsis thaliana GN=APUM11 PE=2 SV=2//3.11888e-06  
XLOC\_0454sp|Q9FWX2|NAC7\_ARATH NAC domain-containing protein 7 OS=Arabidopsis thaliana GN=NAC007 PE=2 SV=2//3.25574e-29  
XLOC\_0455sp|Q9FNP8|RS193\_ARATH 40S ribosomal protein S19-3 OS=Arabidopsis thaliana GN=RPS19C PE=2 SV=1//2.20694e-86  
XLOC\_0456sp|Q9FF99|AAP7\_ARATH Probable amino acid permease 7 OS=Arabidopsis thaliana GN=AAP7 PE=1 SV=1//2.51087e-21  
XLOC\_0456sp|P69322|UBIQP\_PEA Polyubiquitin OS=Pisum sativum GN=PU1 PE=2 SV=2//0  
XLOC\_0457sp|Q9ZW88|FBL34\_ARATH F-box/LRR-repeat protein At1g67190 OS=Arabidopsis thaliana GN=At1g67190 PE=2 SV=1//5.23607e-15  
XLOC\_0458sp|Q62785|HAP28\_RAT 28 kDa heat- and acid-stable phosphoprotein OS=Rattus norvegicus GN=Padp1 PE=1 SV=1//1.08102e-19  
XLOC\_0458sp|Q9FJK3|AGL80\_ARATH Agamous-like MADS-box protein AGL80 OS=Arabidopsis thaliana GN=AGL80 PE=1 SV=1//1.21726e-15  
XLOC\_0460-//  
XLOC\_0461sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.52558e-81  
XLOC\_0462-//  
XLOC\_0463-//  
XLOC\_0463sp|F4K5T2|CGL\_ARATH Bifunctional cystathionine gamma-lyase/cysteine synthase OS=Arabidopsis thaliana GN=DES1 PE=1 SV=  
XLOC\_0464sp|P07463|CALM\_PARTE Calmodulin OS=Paramecium tetraurelia GN=CAM PE=1 SV=3//3.7776e-08  
XLOC\_0464sp|P32294|AX22B\_VIGRR Auxin-induced protein 22B OS=Vigna radiata var. radiata GN=AUX22B PE=2 SV=1//2.82768e-24  
XLOC\_0464sp|Q8LG10|GAT15\_ARATH GATA transcription factor 15 OS=Arabidopsis thaliana GN=GATA15 PE=2 SV=2//2.81461e-13  
XLOC\_0465-//  
XLOC\_0468sp|Q6K9C3|RZP23\_ORYSJ Serine/arginine-rich splicing factor RSZ23 OS=Oryza sativa subsp. japonica GN=RSZ23 PE=2 SV=1//  
XLOC\_0468sp|P46087|NOP2\_HUMAN Putative ribosomal RNA methyltransferase NOP2 OS=Homo sapiens GN=NOP2 PE=1 SV=2//1.05336e-26  
XLOC\_0469sp|Q6NUB2|CW15A\_XENLA Protein CWC15 homolog A OS=Xenopus laevis GN=cwc15-a PE=2 SV=1//3.51664e-07  
XLOC\_0469-//  
XLOC\_0469sp|Q9SAK5|APL\_ARATH Myb family transcription factor APL OS=Arabidopsis thaliana GN=APL PE=2 SV=2//4.77278e-117  
XLOC\_0469sp|Q9LY87|RGLG2\_ARATH E3 ubiquitin-protein ligase RGLG2 OS=Arabidopsis thaliana GN=RGLG2 PE=1 SV=1//2.01926e-147  
XLOC\_0470sp|O64518|MCA5\_ARATH Metacaspase-5 OS=Arabidopsis thaliana GN=AMC5 PE=1 SV=1//7.92534e-19

XLOC\_0470sp|Q8W206|CSN6A\_ARATH COP9 signalosome complex subunit 6a OS=Arabidopsis thaliana GN=CSN6A PE=1 SV=2//2.28904e-73  
XLOC\_0470sp|Q42962|PGKY\_TOBAC Phosphoglycerate kinase, cytosolic OS=Nicotiana tabacum PE=2 SV=1//2.56528e-26  
XLOC\_0470sp|Q20263|GOT1\_CAEEL Probable Golgi transport protein 1 OS=Caenorhabditis elegans GN=F41C3.4 PE=2 SV=2//2.50415e-15  
XLOC\_0471sp|Q9S9Z7|P2C10\_ARATH Probable protein phosphatase 2C 10 OS=Arabidopsis thaliana GN=At1g34750 PE=1 SV=1//1.15987e-12  
XLOC\_0472sp|Q75H77|SAPKA\_ORYSJ Serine/threonine-protein kinase SAPK10 OS=Oryza sativa subsp. japonica GN=SAPK10 PE=2 SV=1//5.0  
XLOC\_0477sp|Q2L934|PSBH\_GOSHI Photosystem II reaction center protein H OS=Gossypium hirsutum GN=psbH PE=3 SV=1//2.01731e-19  
XLOC\_0478-/-  
XLOC\_0480-/-  
XLOC\_0481sp|Q8LB81|GDL79\_ARATH GDSL esterase/lipase At5g33370 OS=Arabidopsis thaliana GN=At5g33370 PE=2 SV=1//0  
XLOC\_0488-/-  
XLOC\_0489sp|Q9CA90|HPR2\_ARATH Glyoxylate/hydroxypyruvate reductase A HPR2 OS=Arabidopsis thaliana GN=HPR2 PE=1 SV=1//8.18956e-  
XLOC\_0489sp|O48786|C734A\_ARATH Cytochrome P450 734A1 OS=Arabidopsis thaliana GN=CYP734A1 PE=2 SV=1//8.96681e-21  
XLOC\_0492-/-  
XLOC\_0493sp|Q42400|AAP1\_ARATH Amino acid permease 1 OS=Arabidopsis thaliana GN=AAP1 PE=1 SV=1//5.44879e-21  
XLOC\_0495-/-  
XLOC\_0495sp|Q8L840|RQL4A\_ARATH ATP-dependent DNA helicase Q-like 4A OS=Arabidopsis thaliana GN=RECQL4A PE=2 SV=1//2.91347e-26  
XLOC\_0496sp|P42731|PABP2\_ARATH Polyadenylate-binding protein 2 OS=Arabidopsis thaliana GN=PAB2 PE=1 SV=1//1.49008e-19  
XLOC\_0499sp|Q8GW29|LOG7\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG7 OS=Arabidopsis thaliana GN=LC  
XLOC\_0500-/-  
XLOC\_0502sp|Q8L5Y9|PANK2\_ARATH Pantothenate kinase 2 OS=Arabidopsis thaliana GN=At4g32180 PE=1 SV=2//2.77758e-38  
XLOC\_0505sp|O81832|Y4729\_ARATH G-type lectin S-receptor-like serine/threonine-protein kinase At4g27290 OS=Arabidopsis thaliana  
XLOC\_0506sp|POCH27|RL402\_TRYCR Ubiquitin-60S ribosomal protein L40 OS=Trypanosoma cruzi PE=2 SV=1//7.41173e-35  
XLOC\_0506sp|POCG71|UBIQ1\_CAEEL Polyubiquitin-A OS=Caenorhabditis elegans GN=ubq-1 PE=3 SV=1//0  
XLOC\_0508-/-  
XLOC\_0508sp|Q94EG9|ZIP11\_ARATH Zinc transporter 11 OS=Arabidopsis thaliana GN=ZIP11 PE=2 SV=1//4.25366e-134  
XLOC\_0509-/-  
XLOC\_0511-/-  
XLOC\_0517sp|P42844|ZIM17\_YEAST Mitochondrial protein import protein ZIM17 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S2  
XLOC\_0518sp|Q9MAM1|CIPK9\_ARATH CBL-interacting serine/threonine-protein kinase 9 OS=Arabidopsis thaliana GN=CIPK9 PE=1 SV=2//1  
XLOC\_0521sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.36773e-63  
XLOC\_0521sp|Q9SPM5|APY2\_ARATH Apyrase 2 OS=Arabidopsis thaliana GN=APY2 PE=1 SV=1//2.91978e-14  
XLOC\_0523sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein At1g65750 OS=Arabidopsis thaliana GN=At1g65750 PE=3 SV=1//3.372  
XLOC\_0526-/-  
XLOC\_0531sp|Q9LSG3|GAUT8\_ARATH Galacturonosyltransferase 8 OS=Arabidopsis thaliana GN=GAUT8 PE=1 SV=1//5.8509e-98  
XLOC\_0532sp|P81393|MYB08\_ANTMA Myb-related protein 308 OS=Antirrhinum majus GN=MYB308 PE=2 SV=1//1.10869e-119

XLOC\_0532sp|P03010|TRAC9\_MAIZE Putative AC9 transposase OS=Zea mays PE=4 SV=1//4.37812e-07  
XLOC\_0533sp|Q9ZPI6|AIM1\_ARATH Peroxisomal fatty acid beta-oxidation multifunctional protein AIM1 OS=Arabidopsis thaliana GN=AIM1  
XLOC\_0535sp|P27489|CB23\_SOLLC Chlorophyll a-b binding protein 13, chloroplastic OS=Solanum lycopersicum GN=CAB13 PE=1 SV=1//1.  
XLOC\_0535sp|Q02909|CAPP1\_SOYBN Phosphoenolpyruvate carboxylase, housekeeping isozyme OS=Glycine max GN=PPC16 PE=2 SV=1//7.1531  
XLOC\_0536sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//4.88504e-15  
XLOC\_0538sp|Q62785|HAP28\_RAT 28 kDa heat- and acid-stable phosphoprotein OS=Rattus norvegicus GN=Pdap1 PE=1 SV=1//9.41414e-13  
XLOC\_0538sp|Q96386|MT3\_CARPA Metallothionein-like protein type 3 OS=Carica papaya PE=3 SV=1//6.98043e-07  
XLOC\_0538sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//2.66225e-31  
XLOC\_0541sp|Q8VY88|LTD\_ARATH Protein LHCP TRANSLOCATION DEFECT OS=Arabidopsis thaliana GN=LTD PE=1 SV=1//7.12087e-80  
XLOC\_0541sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.72  
XLOC\_0541-//  
XLOC\_0545sp|Q9LM71|FKB18\_ARATH Peptidyl-prolyl cis-trans isomerase FKBP18, chloroplastic OS=Arabidopsis thaliana GN=FKBP18 PE=  
XLOC\_0545sp|P92555|M1250\_ARATH Uncharacterized mitochondrial protein AtMg01250 OS=Arabidopsis thaliana GN=AtMg01250 PE=4 SV=1/  
XLOC\_0547-//  
XLOC\_0548sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.13662e-72  
XLOC\_0548sp|P92934|AAP6\_ARATH Amino acid permease 6 OS=Arabidopsis thaliana GN=AAP6 PE=1 SV=1//1.25837e-55  
XLOC\_0548sp|P92934|AAP6\_ARATH Amino acid permease 6 OS=Arabidopsis thaliana GN=AAP6 PE=1 SV=1//1.52565e-56  
XLOC\_0548sp|Q9M0E0|R15A5\_ARATH 40S ribosomal protein S15a-5 OS=Arabidopsis thaliana GN=RPS15AE PE=2 SV=1//7.03187e-41  
XLOC\_0550-//  
XLOC\_0555sp|P69322|UBIQP\_PEA Polyubiquitin OS=Pisum sativum GN=PU1 PE=2 SV=2//0  
XLOC\_0559-//  
XLOC\_0563-//  
XLOC\_0564sp|P29610|CY12\_SOLTU Cytochrome c1-2, heme protein, mitochondrial (Fragment) OS=Solanum tuberosum GN=CYCL PE=1 SV=1//  
XLOC\_0565sp|Q8LBA6|PIS1\_ARATH CDP-diacylglycerol--inositol 3-phosphatidyltransferase 1 OS=Arabidopsis thaliana GN=PIS1 PE=1 SV=  
XLOC\_0570sp|Q8S628|PDR13\_ORYSJ Pleiotropic drug resistance protein 13 OS=Oryza sativa subsp. japonica GN=PDR13 PE=3 SV=1//2.96  
XLOC\_0571sp|P08548|LIN1\_NYCCO LINE-1 reverse transcriptase homolog OS=Nycticebus coucang PE=1 SV=1//3.67696e-09  
XLOC\_0574sp|Q2L953|NDHH\_GOSHI NAD(P)H-quinone oxidoreductase subunit H, chloroplastic OS=Gossypium hirsutum GN=ndhH PE=3 SV=1/  
XLOC\_0575-//  
XLOC\_0575-//  
XLOC\_0578sp|Q9F234|AGL2\_BACTQ Alpha-glucosidase 2 OS=Bacillus thermoamyloliquefaciens PE=3 SV=1//1.98621e-98  
XLOC\_0578sp|Q6F2U9|SYK\_ORYSJ Lysine--tRNA ligase OS=Oryza sativa subsp. japonica GN=Os03g0586800 PE=2 SV=1//1.60709e-22  
XLOC\_0578sp|Q2L913|YCF4\_GOSHI Photosystem I assembly protein Ycf4 OS=Gossypium hirsutum GN=yfc4 PE=3 SV=1//4.21266e-33  
XLOC\_0578sp|A0A361|PSBB\_COFAR Photosystem II CP47 chlorophyll apoprotein OS=Coffea arabica GN=psbB PE=3 SV=1//1.13008e-22  
XLOC\_0578sp|Q09WZ1|PSBB\_MORIN Photosystem II CP47 chlorophyll apoprotein OS=Morus indica GN=psbB PE=3 SV=1//5.95932e-19  
XLOC\_0580-//

XLOC\_0582sp|Q89VX9|GLND\_BRAJA [Protein-PII] uridylyltransferase OS=Bradyrhizobium japonicum (strain USDA 110) GN=glnD PE=3 SV=  
XLOC\_0582sp|O49286|SKP2B\_ARATH F-box protein SKP2B OS=Arabidopsis thaliana GN=SKP2B PE=1 SV=1//4.57419e-09  
XLOC\_0583sp|Q9SYL9|RK13\_ARATH 50S ribosomal protein L13, chloroplastic OS=Arabidopsis thaliana GN=RPL13 PE=1 SV=1//5.19782e-12  
XLOC\_0586sp|Q84MA2|IP5P1\_ARATH Type I inositol 1,4,5-trisphosphate 5-phosphatase 1 OS=Arabidopsis thaliana GN=IP5P1 PE=1 SV=2/  
XLOC\_0586-//  
XLOC\_0587sp|Q42962|PGKY\_TOBAC Phosphoglycerate kinase, cytosolic OS=Nicotiana tabacum PE=2 SV=1//3.86339e-23  
XLOC\_0589sp|P49636|RL40\_NICSY Ubiquitin-60S ribosomal protein L40 OS=Nicotiana glauca GN=UBICEP52-7 PE=2 SV=2//1.0956e-86  
XLOC\_0591-//  
XLOC\_0591sp|Q42783|BCCP\_SOYBN Biotin carboxyl carrier protein of acetyl-CoA carboxylase, chloroplastic OS=Glycine max GN=ACCB-  
XLOC\_0592-//  
XLOC\_0598sp|Q55E69|SYS1\_DICDI Protein SYS1 homolog OS=Dictyostelium discoideum GN=sys1 PE=3 SV=1//2.90558e-06  
XLOC\_0598sp|O74985|NAT1\_SCHPO N-terminal acetyltransferase A complex subunit nat1 OS=Schizosaccharomyces pombe (strain 972 / A  
XLOC\_0599-//  
XLOC\_0599sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.05  
XLOC\_0599sp|P86387|PLDA1\_CARPA Phospholipase D alpha 1 OS=Carica papaya GN=PLD1 PE=1 SV=1//2.78517e-16  
XLOC\_0602sp|P27057|GAST1\_SOLLC Protein GAST1 OS=Solanum lycopersicum GN=GAST1 PE=2 SV=1//8.96252e-32  
XLOC\_0603sp|Q93Y09|SCP45\_ARATH Serine carboxypeptidase-like 45 OS=Arabidopsis thaliana GN=SCPL45 PE=2 SV=1//1.26314e-24  
XLOC\_0603sp|O49292|PPD4\_ARATH PsbP domain-containing protein 4, chloroplastic OS=Arabidopsis thaliana GN=PPD4 PE=1 SV=2//1.179  
XLOC\_0603sp|Q9FZ36|M3K2\_ARATH Mitogen-activated protein kinase kinase kinase 2 OS=Arabidopsis thaliana GN=ANP2 PE=2 SV=1//1.51  
XLOC\_0604sp|Q9FL28|FLS2\_ARATH LRR receptor-like serine/threonine-protein kinase FLS2 OS=Arabidopsis thaliana GN=FLS2 PE=1 SV=1  
XLOC\_0606-//  
XLOC\_0607sp|O64477|Y2913\_ARATH G-type lectin S-receptor-like serine/threonine-protein kinase At2g19130 OS=Arabidopsis thaliana  
XLOC\_0607sp|Q0WPW4|ACC05\_ARATH 1-aminocyclopropane-1-carboxylate oxidase 5 OS=Arabidopsis thaliana GN=At1g77330 PE=2 SV=1//3.8  
XLOC\_0612sp|Q11Y77|SE1BA\_DANRE Histone-lysine N-methyltransferase SETD1B-A OS=Danio rerio GN=setd1ba PE=1 SV=2//3.05687e-57  
XLOC\_0613sp|Q8LC03|ATB13\_ARATH Homeobox-leucine zipper protein ATHB-13 OS=Arabidopsis thaliana GN=ATHB-13 PE=2 SV=2//1.42634e-  
XLOC\_0618sp|Q8CP71|DING\_STAES Probable ATP-dependent helicase DinG homolog OS=Staphylococcus epidermidis (strain ATCC 12228) G  
XLOC\_0618sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.07807e-13  
XLOC\_0621-//  
XLOC\_0623sp|P20825|POL2\_DROME Retrovirus-related Pol polyprotein from transposon 297 OS=Drosophila melanogaster GN=pol PE=4 SV  
XLOC\_0624-//  
XLOC\_0625sp|Q6NPR7|PMT0\_ARATH Probable methyltransferase PMT24 OS=Arabidopsis thaliana GN=At1g29470 PE=1 SV=1//0  
XLOC\_0625-//  
XLOC\_0625sp|Q43636|TRXH\_RICCO Thioredoxin H-type OS=Ricinus communis PE=3 SV=1//4.93945e-58  
XLOC\_0625-//  
XLOC\_0627-//

XLOC\_0627sp|Q9I8D1|MY06\_CHICK Unconventional myosin-VI OS=Gallus gallus GN=MY06 PE=1 SV=1//4.57223e-13  
XLOC\_0627-//-  
XLOC\_0629sp|Q9LQ73|PX11C\_ARATH Peroxisomal membrane protein 11C OS=Arabidopsis thaliana GN=PEX11C PE=1 SV=1//3.08898e-141  
XLOC\_0630sp|Q00962|POL\_CAMVN Enzymatic polyprotein OS=Cauliflower mosaic virus (strain NY8153) GN=ORF V PE=3 SV=1//4.02417e-10  
XLOC\_0631-//-  
XLOC\_0633sp|Q8GYN9|MENB\_ARATH 1,4-Dihydroxy-2-naphthoyl-CoA synthase, peroxisomal OS=Arabidopsis thaliana GN=MENB PE=1 SV=2//5  
XLOC\_0634-//-  
XLOC\_0639sp|P92540|M1060\_ARATH Uncharacterized mitochondrial protein AtMg01060 OS=Arabidopsis thaliana GN=AtMg01060 PE=4 SV=1/  
XLOC\_0639-//-  
XLOC\_0645sp|Q9STN3|SPT51\_ARATH Putative transcription elongation factor SPT5 homolog 1 OS=Arabidopsis thaliana GN=At4g08350 PE  
XLOC\_0646sp|P07591|TRXM\_SPIOL Thioredoxin M-type, chloroplastic OS=Spinacia oleracea PE=1 SV=2//1.76432e-55  
XLOC\_0648sp|F4HPR5|DRP5A\_ARATH Dynamin-related protein 5A OS=Arabidopsis thaliana GN=DRP5A PE=2 SV=1//3.40957e-31  
XLOC\_0648-//-  
XLOC\_0649sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//1.62249e-19  
XLOC\_0651-//-  
XLOC\_0651sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.170  
XLOC\_0652sp|Q29Q28|UTR2\_ARATH UDP-galactose/UDP-glucose transporter 2 OS=Arabidopsis thaliana GN=UTR2 PE=2 SV=1//2.247e-24  
XLOC\_0654-//-  
XLOC\_0655-//-  
XLOC\_0655sp|Q850K7|EXLB1\_ORYSJ Expansin-like B1 OS>Oryza sativa subsp. japonica GN=EXLB1 PE=2 SV=2//4.02615e-11  
XLOC\_0657sp|Q6PHQ8|NAA35\_MOUSE N-alpha-acetyltransferase 35, NatC auxiliary subunit OS=Mus musculus GN=Naa35 PE=1 SV=1//7.0199  
XLOC\_0659-//-  
XLOC\_0659sp|Q42560|ACO1\_ARATH Aconitate hydratase 1 OS=Arabidopsis thaliana GN=ACO1 PE=1 SV=2//7.6177e-22  
XLOC\_0660sp|Q54RR9|Y9844\_DICDI Probable serine/threonine-protein kinase DDB\_G0282963 OS=Dictyostelium discoideum GN=DDB\_G02829  
XLOC\_0660sp|Q292F9|GDAP2\_DROPS Protein GDAP2 homolog OS=Drosophila pseudoobscura pseudoobscura GN=GA15091 PE=3 SV=1//2.19921e-  
XLOC\_0660sp|Q7XA86|ZDH11\_ARATH Probable S-acyltransferase At3g51390 OS=Arabidopsis thaliana GN=At3g51390 PE=2 SV=1//8.61437e-9  
XLOC\_0660sp|Q5ZIF1|APMAP\_CHICK Adipocyte plasma membrane-associated protein OS=Gallus gallus GN=APMAP PE=2 SV=1//1.29702e-42  
XLOC\_0664-//-  
XLOC\_0666-//-  
XLOC\_0666sp|Q9FV71|E2FB\_ARATH Transcription factor E2FB OS=Arabidopsis thaliana GN=E2FB PE=1 SV=1//7.75412e-58  
XLOC\_0669-//-  
XLOC\_0670sp|Q2JS42|PYRH\_SYNJA Uridylate kinase OS=Synechococcus sp. (strain JA-3-3Ab) GN=pyrH PE=3 SV=1//4.17217e-61  
XLOC\_0670sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.65  
XLOC\_0672-//-  
XLOC\_0674sp|Q39255|SKP1A\_ARATH SKP1-like protein 1A OS=Arabidopsis thaliana GN=SKP1A PE=1 SV=1//9.71046e-73



XLOC\_0675-/-  
XLOC\_0679sp|064789|DRL18\_ARATH Probable disease resistance protein Atlg61310 OS=Arabidopsis thaliana GN=Atlg61310 PE=2 SV=1//4  
XLOC\_0680-/-  
XLOC\_0681sp|F4IQV7|SCY2\_ARATH Preprotein translocase subunit SCY2, chloroplastic OS=Arabidopsis thaliana GN=SCY2 PE=2 SV=1//3.  
XLOC\_0681sp|P70698|PYRG1\_MOUSE CTP synthase 1 OS=Mus musculus GN=Ctps1 PE=1 SV=2//4.419e-30  
XLOC\_0681sp|POC8Z0|Y8359\_ORYSI Uncharacterized protein OsI\_027940 OS=Oryza sativa subsp. indica GN=OsI\_027940 PE=1 SV=2//4.629  
XLOC\_0682-/-  
XLOC\_0682sp|Q8LBI9|EDL16\_ARATH Sugar transporter ERD6-like 16 OS=Arabidopsis thaliana GN=At5g18840 PE=2 SV=2//4.01047e-42  
XLOC\_0682sp|Q8LBI9|EDL16\_ARATH Sugar transporter ERD6-like 16 OS=Arabidopsis thaliana GN=At5g18840 PE=2 SV=2//1.0452e-21  
XLOC\_0682sp|Q9LUG9|MD33A\_ARATH Mediator of RNA polymerase II transcription subunit 33A OS=Arabidopsis thaliana GN=MED33A PE=1  
XLOC\_0682sp|Q8H100|AGD8\_ARATH Probable ADP-ribosylation factor GTPase-activating protein AGD8 OS=Arabidopsis thaliana GN=AGD8  
XLOC\_0682sp|Q42840|HEM6\_HORVU Coproporphyrinogen-III oxidase, chloroplastic OS=Hordeum vulgare GN=CPX PE=2 SV=1//1.5607e-41  
XLOC\_0683-/-  
XLOC\_0684sp|Q9LM02|SMT1\_ARATH Cycloartenol-C-24-methyltransferase OS=Arabidopsis thaliana GN=SMT1 PE=2 SV=1//0  
XLOC\_0690sp|Q04062|RPN9\_YEAST 26S proteasome regulatory subunit RPN9 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c)  
XLOC\_0690sp|POCG71|UBIQ1\_CAEEL Polyubiquitin-A OS=Caenorhabditis elegans GN=ubq-1 PE=3 SV=1//5.04817e-36  
XLOC\_0690sp|POCH05|UBI2P\_PETCR Polyubiquitin OS=Petroselinum crispum GN=PCUBI4-2 PE=3 SV=1//0  
XLOC\_0691sp|A4GYU7|RK14\_POPTR 50S ribosomal protein L14, chloroplastic OS=Populus trichocarpa GN=rpl14 PE=3 SV=1//4.6354e-25  
XLOC\_0691sp|Q8L6Y1|UBP14\_ARATH Ubiquitin carboxyl-terminal hydrolase 14 OS=Arabidopsis thaliana GN=UBP14 PE=1 SV=1//6.67603e-1  
XLOC\_0692-/-  
XLOC\_0694sp|065717|CNGC1\_ARATH Cyclic nucleotide-gated ion channel 1 OS=Arabidopsis thaliana GN=CNGC1 PE=1 SV=1//1.25559e-39  
XLOC\_0694sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.848  
XLOC\_0697-/-  
XLOC\_0697-/-  
XLOC\_0700sp|Q8RXD4|BRCA1\_ARATH Protein BREAST CANCER SUSCEPTIBILITY 1 homolog OS=Arabidopsis thaliana GN=BRCA1 PE=2 SV=1//3.85  
XLOC\_0700-/-  
XLOC\_0700-/-  
XLOC\_0700sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//7.76  
XLOC\_0701sp|P42791|RL182\_ARATH 60S ribosomal protein L18-2 OS=Arabidopsis thaliana GN=RPL18B PE=1 SV=2//4.44841e-112  
XLOC\_0702sp|Q9LX82|MYB48\_ARATH Transcription factor MYB48 OS=Arabidopsis thaliana GN=MYB48 PE=2 SV=1//5.06086e-62  
XLOC\_0703sp|Q9XG19|AGUB\_SOLLC N-carbamoylputrescine amidase OS=Solanum lycopersicum GN=CPA PE=2 SV=1//1.64254e-15  
XLOC\_0703sp|Q0WPH8|NEK5\_ARATH Serine/threonine-protein kinase Nek5 OS=Arabidopsis thaliana GN=NEK5 PE=1 SV=1//3.18009e-72  
XLOC\_0703-/-  
XLOC\_0703sp|P34913|HYES\_HUMAN Bifunctional epoxide hydrolase 2 OS=Homo sapiens GN=EPHX2 PE=1 SV=2//3.14926e-40  
XLOC\_0704-/-

XLOC\_0704sp|023116|EIL3\_ARATH ETHYLENE INSENSITIVE 3-like 3 protein OS=Arabidopsis thaliana GN=EIL3 PE=1 SV=1//2.30449e-138  
XLOC\_0705sp|Q93W93|FBK22\_ARATH F-box/kelch-repeat protein Atlg55270 OS=Arabidopsis thaliana GN=Atlg55270 PE=2 SV=1//0  
XLOC\_0707-//  
XLOC\_0707sp|Q9CA90|HPR2\_ARATH Glyoxylate/hydroxypyruvate reductase A HPR2 OS=Arabidopsis thaliana GN=HPR2 PE=1 SV=1//1.32852e-  
XLOC\_0707sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.613  
XLOC\_0711sp|Q9Y5Q8|TF3C5\_HUMAN General transcription factor 3C polypeptide 5 OS=Homo sapiens GN=GTF3C5 PE=1 SV=2//3.96468e-27  
XLOC\_0712-//  
XLOC\_0713sp|Q07123|AM02\_ARTS1 Copper methylamine oxidase OS=Arthrobacter sp. (strain P1) GN=maoII PE=1 SV=1//3.72682e-23  
XLOC\_0714-//  
XLOC\_0719sp|Q9C9L5|WAKLH\_ARATH Wall-associated receptor kinase-like 9 OS=Arabidopsis thaliana GN=WAKL9 PE=2 SV=1//2.03629e-09  
XLOC\_0719-//  
XLOC\_0720sp|A7QE4|PER5\_VITVI Peroxidase 5 OS=Vitis vinifera GN=GSVIVT00037159001 PE=1 SV=2//8.67384e-89  
XLOC\_0720-//  
XLOC\_0720-//  
XLOC\_0720sp|P22242|DRPE\_CRAPL Desiccation-related protein PCC13-62 OS=Craterostigma plantagineum PE=2 SV=1//1.36631e-92  
XLOC\_0720sp|Q8TE76|MORC4\_HUMAN MORC family CW-type zinc finger protein 4 OS=Homo sapiens GN=MORC4 PE=1 SV=2//5.01182e-08  
XLOC\_0720-//  
XLOC\_0720-//  
XLOC\_0720sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//9.62734e-78  
XLOC\_0722sp|O65572|CCD1\_ARATH Carotenoid 9,10(9',10')-cleavage dioxygenase 1 OS=Arabidopsis thaliana GN=CCD1 PE=1 SV  
XLOC\_0723sp|Q8W471|AAE15\_ARATH Long-chain-fatty-acid--[acyl-carrier-protein] ligase AEE15, chloroplastic OS=Arabidopsis thalia  
XLOC\_0724sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//7.92  
XLOC\_0725-//  
XLOC\_0725sp|Q9ZT50|RHA2A\_ARATH E3 ubiquitin-protein ligase RHA2A OS=Arabidopsis thaliana GN=RHA2A PE=1 SV=1//5.94929e-12  
XLOC\_0725-//  
XLOC\_0730sp|P37392|TBB1\_LUPAL Tubulin beta-1 chain OS=Lupinus albus GN=TUBB1 PE=3 SV=1//0  
XLOC\_0730sp|Q6VAF4|TBB9\_GOSHI Tubulin beta-9 chain OS=Gossypium hirsutum PE=2 SV=1//0  
XLOC\_0730sp|Q7XSQ9|PIP12\_ORYSJ Probable aquaporin PIP1-2 OS=Oryza sativa subsp. japonica GN=PIP1-2 PE=2 SV=3//3.53958e-180  
XLOC\_0731sp|Q9LVM1|AB25B\_ARATH ABC transporter B family member 25, mitochondrial OS=Arabidopsis thaliana GN=ABCB25 PE=1 SV=1//  
XLOC\_0733sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.03  
XLOC\_0734sp|O04885|LGUL\_BRAJU Lactoylglutathione lyase OS=Brassica juncea GN=GLY I PE=2 SV=1//6.31902e-94  
XLOC\_0734sp|Q9S JL9|XTH32\_ARATH Probable xyloglucan endotransglucosylase/hydrolase protein 32 OS=Arabidopsis thaliana GN=XTH32  
XLOC\_0734-//  
XLOC\_0734-//  
XLOC\_0737sp|Q9ZW33|TIM10\_ARATH Mitochondrial import inner membrane translocase subunit TIM10 OS=Arabidopsis thaliana GN=TIM10

XLOC\_0737-/-

XLOC\_0738sp|Q94EI3|PE192\_ARATH Peroxisome biogenesis protein 19-2 OS=Arabidopsis thaliana GN=PEX19-2 PE=1 SV=1//7.63146e-66

XLOC\_0739sp|P53997|SET\_DROME Protein SET OS=Drosophila melanogaster GN=Set PE=1 SV=2//1.67098e-47

XLOC\_0741sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=Oryza sativa subsp

XLOC\_0741-/-

XLOC\_0742sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.96444e-97

XLOC\_0743sp|Q9LQU4|PCR2\_ARATH Protein PLANT CADMIUM RESISTANCE 2 OS=Arabidopsis thaliana GN=PCR2 PE=1 SV=1//4.44787e-60

XLOC\_0743sp|Q7PC82|AB42G\_ARATH ABC transporter G family member 42 OS=Arabidopsis thaliana GN=ABCG42 PE=2 SV=1//1.44692e-08

XLOC\_0746sp|Q8BGE5|FANCM\_MOUSE Fanconi anemia group M protein homolog OS=Mus musculus GN=Fancm PE=1 SV=3//2.43096e-09

XLOC\_0747-/-

XLOC\_0748-/-

XLOC\_0752sp|Q8GTB6|THCAS\_CANSA Tetrahydrocannabinolic acid synthase OS=Cannabis sativa PE=1 SV=1//2.45285e-48

XLOC\_0752sp|Q7GB25|AB5C\_ARATH ABC transporter C family member 5 OS=Arabidopsis thaliana GN=ABCC5 PE=2 SV=2//5.77499e-49

XLOC\_0752sp|Q7GB25|AB5C\_ARATH ABC transporter C family member 5 OS=Arabidopsis thaliana GN=ABCC5 PE=2 SV=2//3.48881e-44

XLOC\_0752sp|Q8VZZ4|AB6C\_ARATH ABC transporter C family member 6 OS=Arabidopsis thaliana GN=ABCC6 PE=2 SV=3//1.52381e-54

XLOC\_0752sp|Q7FAH2|G3PC2\_ORYSJ Glycerinaldehyde-3-phosphate dehydrogenase 2, cytosolic OS=Oryza sativa subsp. japonica GN=GAPC2

XLOC\_0753sp|Q9LYT3|TT12\_ARATH Protein TRANSPARENT TESTA 12 OS=Arabidopsis thaliana GN=TT12 PE=2 SV=1//4.08827e-15

XLOC\_0755sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.977

XLOC\_0756sp|P31165|RK15\_PEA 50S ribosomal protein L15, chloroplastic (Fragment) OS=Pisum sativum GN=RPL15 PE=2 SV=1//3.9359e-4

XLOC\_0756sp|Q941R6|MLP31\_ARATH MLP-like protein 31 OS=Arabidopsis thaliana GN=MLP31 PE=1 SV=2//1.16588e-18

XLOC\_0757-/-

XLOC\_0759-/-

XLOC\_0763sp|Q9LT17|BBR\_ARATH E3 ubiquitin ligase BIG BROTHER-related OS=Arabidopsis thaliana GN=BBR PE=2 SV=1//3.02093e-17

XLOC\_0764-/-

XLOC\_0764sp|O80977|VSR3\_ARATH Vacuolar-sorting receptor 3 OS=Arabidopsis thaliana GN=VSR3 PE=2 SV=1//6.25066e-61

XLOC\_0764sp|Q0WL52|NPY5\_ARATH BTB/POZ domain-containing protein NPY5 OS=Arabidopsis thaliana GN=NPY5 PE=2 SV=2//1.6636e-79

XLOC\_0764sp|O64818|Y2309\_ARATH Uncharacterized protein At2g23090 OS=Arabidopsis thaliana GN=At2g23090 PE=1 SV=1//1.31124e-16

XLOC\_0764sp|A4FVI0|ZSWM7\_DANRE Zinc finger SWIM domain-containing protein 7 OS=Danio rerio GN=zswim7 PE=2 SV=2//9.80263e-20

XLOC\_0768sp|Q93ZB1|LOL1\_ARATH Protein LOL1 OS=Arabidopsis thaliana GN=LOL1 PE=2 SV=1//3.80161e-18

XLOC\_0769sp|Q6VAF5|TBB7\_GOSHI Tubulin beta-7 chain OS=Gossypium hirsutum PE=2 SV=1//0

XLOC\_0769sp|Q39024|MPK4\_ARATH Mitogen-activated protein kinase 4 OS=Arabidopsis thaliana GN=MPK4 PE=1 SV=2//1.49884e-74

XLOC\_0770sp|Q9SG92|MES17\_ARATH Methyltransferase 17 OS=Arabidopsis thaliana GN=MES17 PE=1 SV=1//3.18179e-28

XLOC\_0770sp|Q9C562|CIPKA\_ARATH CBL-interacting serine/threonine-protein kinase 10 OS=Arabidopsis thaliana GN=CIPK10 PE=1 SV=1//

XLOC\_0771sp|Q0JBP5|LOGL6\_ORYSJ Probable cytokinin riboside 5'-monophosphate phosphoribohydrolase LOGL6 OS=Oryza sativa su

XLOC\_0771-/-

XLOC\_0772-/-  
XLOC\_0773sp|F4ISV6|THG2\_ARATH tRNA(His) guanylyltransferase 2 OS=Arabidopsis thaliana GN=THG2 PE=1 SV=1//2.40072e-07  
XLOC\_0777sp|P53997|SET\_DROME Protein SET OS=Drosophila melanogaster GN=Set PE=1 SV=2//9.58607e-53  
XLOC\_0779-/-  
XLOC\_0780-/-  
XLOC\_0782-/-  
XLOC\_0787sp|Q6TAW2|SERP2\_MOUSE Stress-associated endoplasmic reticulum protein 2 OS=Mus musculus GN=Serp2 PE=2 SV=2//9.10479e-  
XLOC\_0789sp|Q9SAF0|ORP1D\_ARATH Oxysterol-binding protein-related protein 1D OS=Arabidopsis thaliana GN=ORP1D PE=2 SV=1//2.5557  
XLOC\_0789sp|Q9SAF0|ORP1D\_ARATH Oxysterol-binding protein-related protein 1D OS=Arabidopsis thaliana GN=ORP1D PE=2 SV=1//1.0426  
XLOC\_0789sp|Q5PQN1|HERC4\_RAT Probable E3 ubiquitin-protein ligase HERC4 OS=Rattus norvegicus GN=Herc4 PE=2 SV=1//8.62193e-09  
XLOC\_0789-/-  
XLOC\_0789-/-  
XLOC\_0789-/-  
XLOC\_0789-/-  
XLOC\_0789sp|COLG12|Y1677\_ARATH Probable LRR receptor-like serine/threonine-protein kinase Atlg67720 OS=Arabidopsis thaliana GN  
XLOC\_0789sp|Q8LF36|2A5T\_ARATH Serine/threonine protein phosphatase 2A 57 kDa regulatory subunit B&apos; theta isoform OS=Arabi  
XLOC\_0789sp|Q9FT92|Y5843\_ARATH Uncharacterized protein At5g08430 OS=Arabidopsis thaliana GN=At5g08430 PE=1 SV=2//2.05394e-62  
XLOC\_0789-/-  
XLOC\_0789sp|Q9CAF9|IOJAM\_ARATH Protein Iojap-related, mitochondrial OS=Arabidopsis thaliana GN=Atlg67620 PE=2 SV=1//2.43906e-4  
XLOC\_0791sp|Q14FC6|PETD\_POPAL Cytochrome b6-f complex subunit 4 OS=Populus alba GN=petD PE=3 SV=1//2.36237e-104  
XLOC\_0793-/-  
XLOC\_0795-/-  
XLOC\_0797-/-  
XLOC\_0797sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.597  
XLOC\_0800sp|P29675|SF3\_HELAN Pollen-specific protein SF3 OS=Helianthus annuus GN=SF3 PE=2 SV=1//9.93272e-14  
XLOC\_0800-/-  
XLOC\_0800sp|O64818|Y2309\_ARATH Uncharacterized protein At2g23090 OS=Arabidopsis thaliana GN=At2g23090 PE=1 SV=1//2.52443e-42  
XLOC\_0801-/-  
XLOC\_0801sp|P93312|YMF16\_ARATH Uncharacterized tatC-like protein ymf16 OS=Arabidopsis thaliana GN=YMF16 PE=2 SV=2//3.63004e-37  
XLOC\_0809sp|Q921Q3|ALG1\_MOUSE Chitobiosyldiphosphodolichol beta-mannosyltransferase OS=Mus musculus GN=Alg1 PE=2 SV=3//3.94891  
XLOC\_0810sp|Q9MAB9|MUB1\_ARATH Membrane-anchored ubiquitin-fold protein 1 OS=Arabidopsis thaliana GN=MUB1 PE=1 SV=1//3.80885e-4  
XLOC\_0810sp|Q8LBM4|ISAM1\_ARATH Iron-sulfur assembly protein IscA-like 1, mitochondrial OS=Arabidopsis thaliana GN=At2g16710 PE  
XLOC\_0810sp|Q9SZ67|WRK19\_ARATH Probable WRKY transcription factor 19 OS=Arabidopsis thaliana GN=WRKY19 PE=2 SV=1//4.38338e-35  
XLOC\_0812sp|Q8VZG8|Y4885\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At4g08850 OS=Arabidopsis thaliana GN  
XLOC\_0812sp|Q9VR59|VIP1\_DROME Inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase OS=Drosophila melanogas

XLOC\_0813sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.69  
XLOC\_0814sp|P26520|G3PC\_PETHY Glyceraldehyde-3-phosphate dehydrogenase, cytosolic OS=Petunia hybrida GN=GAPC PE=2 SV=1//1.6878  
XLOC\_0815sp|Q9C9A9|COL7\_ARATH Zinc finger protein CONSTANS-LIKE 7 OS=Arabidopsis thaliana GN=COL7 PE=2 SV=1//2.57046e-17  
XLOC\_0815-//-  
XLOC\_0815sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//9.49594e-15  
XLOC\_0817-//-  
XLOC\_0820-//-  
XLOC\_0820-//-  
XLOC\_0821sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.75  
XLOC\_0821sp|Q8LBC0|CCT13\_ARATH Cyclin-T1-3 OS=Arabidopsis thaliana GN=CYCT1-3 PE=1 SV=2//3.63738e-17  
XLOC\_0823sp|Q94AR8|LEUC\_ARATH 3-isopropylmalate dehydratase OS=Arabidopsis thaliana GN=IIL1 PE=2 SV=1//8.76971e-15  
XLOC\_0825sp|P14381|YTX2\_XENLA Transposon TX1 uncharacterized 149 kDa protein OS=Xenopus laevis PE=4 SV=1//1.01226e-14  
XLOC\_0827-//-  
XLOC\_0827sp|P40940|ARF3\_ARATH ADP-ribosylation factor 3 OS=Arabidopsis thaliana GN=ARF3 PE=1 SV=2//4.57016e-13  
XLOC\_0829sp|Q55E69|SYS1\_DICDI Protein SYS1 homolog OS=Dictyostelium discoideum GN=sys1 PE=3 SV=1//2.03946e-09  
XLOC\_0831-//-  
XLOC\_0832sp|Q9M1E7|TET3\_ARATH Tetraspanin-3 OS=Arabidopsis thaliana GN=TET3 PE=2 SV=1//5.44835e-133  
XLOC\_0832sp|Q9SK08|LBD11\_ARATH LOB domain-containing protein 11 OS=Arabidopsis thaliana GN=LBD11 PE=2 SV=2//1.75777e-50  
XLOC\_0832-//-  
XLOC\_0835-//-  
XLOC\_0838sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.084  
XLOC\_0840sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.33  
XLOC\_0840sp|Q2L951|YCF1\_GOSHI Putative membrane protein ycf1 OS=Gossypium hirsutum GN=ycf1 PE=3 SV=1//2.87815e-36  
XLOC\_0840-//-  
XLOC\_0840sp|POCH33|UBQ11\_ARATH Polyubiquitin 11 OS=Arabidopsis thaliana GN=UBQ11 PE=1 SV=1//6.96845e-100  
XLOC\_0840-//-  
XLOC\_0840-//-  
XLOC\_0841-//-  
XLOC\_0841sp|POCI03|PTR28\_ARATH Putative peptide/nitrate transporter At2g37900 OS=Arabidopsis thaliana GN=At2g37900 PE=2 SV=1//  
XLOC\_0841sp|Q9M331|PTR45\_ARATH Probable peptide/nitrate transporter At3g53960 OS=Arabidopsis thaliana GN=At3g53960 PE=2 SV=2//  
XLOC\_0841sp|Q945M8|CSPLI\_ARATH CASP-like protein At3g53850 OS=Arabidopsis thaliana GN=At3g53850 PE=2 SV=1//4.09268e-57  
XLOC\_0841sp|081081|LAC2\_ARATH Laccase-2 OS=Arabidopsis thaliana GN=LAC2 PE=2 SV=1//4.69308e-14  
XLOC\_0841sp|Q9FJD5|LAC17\_ARATH Laccase-17 OS=Arabidopsis thaliana GN=LAC17 PE=2 SV=1//2.85645e-36  
XLOC\_0841sp|Q9FHR7|WRK49\_ARATH Probable WRKY transcription factor 49 OS=Arabidopsis thaliana GN=WRKY49 PE=2 SV=1//7.14302e-16  
XLOC\_0841sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//8.05

XLOC\_0841sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//3.39095e-08  
XLOC\_0842-//  
XLOC\_0842sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//8.1041e-74  
XLOC\_0844sp|Q54MZ3|CDC20\_DICDI Anaphase-promoting complex subunit cdc20 OS=Dictyostelium discoideum GN=cdc20 PE=1 SV=1//1.7524  
XLOC\_0845sp|Q8LG10|GAT15\_ARATH GATA transcription factor 15 OS=Arabidopsis thaliana GN=GATA15 PE=2 SV=2//5.93077e-14  
XLOC\_0845-//  
XLOC\_0846sp|Q8H5T6|LTI6A\_ORYSJ Hydrophobic protein LTI6A OS=Oryza sativa subsp. japonica GN=LTI6A PE=2 SV=1//6.28954e-15  
XLOC\_0847sp|P04323|POL3\_DROME Retrovirus-related Pol polyprotein from transposon 17.6 OS=Drosophila melanogaster GN=pol PE=4 S  
XLOC\_0853-//  
XLOC\_0856sp|Q0WPX7|BAG2\_ARATH BAG family molecular chaperone regulator 2 OS=Arabidopsis thaliana GN=BAG2 PE=2 SV=1//1.95954e-2  
XLOC\_0856sp|P29516|TBB8\_ARATH Tubulin beta-8 chain OS=Arabidopsis thaliana GN=TUBB8 PE=2 SV=2//0  
XLOC\_0858sp|Q9M8K6|MUTE\_ARATH Transcription factor MUTE OS=Arabidopsis thaliana GN=MUTE PE=2 SV=1//2.61994e-74  
XLOC\_0859sp|Q9LIQ6|ING1\_ARATH PHD finger protein ING1 OS=Arabidopsis thaliana GN=ING1 PE=1 SV=1//9.26545e-32  
XLOC\_0860-//  
XLOC\_0862sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.94  
XLOC\_0864sp|Q9SQ57|PXG\_SESIN Peroxygenase OS=Sesamum indicum GN=SOP1 PE=1 SV=1//8.98053e-97  
XLOC\_0864sp|O22788|PXG3\_ARATH Probable peroxygenase 3 OS=Arabidopsis thaliana GN=PXG3 PE=1 SV=1//6.93241e-34  
XLOC\_0864sp|Q93Y94|RPOT1\_NICSY DNA-directed RNA polymerase 1, mitochondrial OS=Nicotiana glauca GN=RPOT1 PE=2 SV=1//2.6676  
XLOC\_0864sp|Q84WG1|NHX3\_ARATH Sodium/hydrogen exchanger 3 OS=Arabidopsis thaliana GN=NHX3 PE=2 SV=2//1.22629e-36  
XLOC\_0865-//  
XLOC\_0867sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.51457e-50  
XLOC\_0867-//  
XLOC\_0867sp|A8FRR2|ARNA\_SHESH Bifunctional polymyxin resistance protein ArnA OS=Shewanella sediminis (strain HAW-EB3) GN=arnA  
XLOC\_0868sp|O80874|NDA2\_ARATH Alternative NAD(P)H dehydrogenase 2, mitochondrial OS=Arabidopsis thaliana GN=NDA2 PE=1 SV=1//2.  
XLOC\_0868sp|P49078|ASNS1\_ARATH Asparagine synthetase [glutamine-hydrolyzing] 1 OS=Arabidopsis thaliana GN=ASN1 PE=2 SV=2//8.86  
XLOC\_0868sp|O24661|ASNS\_TRIVS Asparagine synthetase [glutamine-hydrolyzing] OS=Triphysaria versicolor GN=AS PE=2 SV=3//4.66226  
XLOC\_0868sp|P49078|ASNS1\_ARATH Asparagine synthetase [glutamine-hydrolyzing] 1 OS=Arabidopsis thaliana GN=ASN1 PE=2 SV=2//2.87  
XLOC\_0868sp|O43918|AIRE\_HUMAN Autoimmune regulator OS=Homo sapiens GN=AIRE PE=1 SV=1//6.37906e-11  
XLOC\_0868-//  
XLOC\_0868sp|P05621|H2B2\_WHEAT Histone H2B.2 OS=Triticum aestivum PE=1 SV=2//2.9806e-07  
XLOC\_0869sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=Arabidopsis thaliana GN=AtMg00310 PE=4 SV=1//  
XLOC\_0869sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=Arabidopsis thaliana GN=AtMg00310 PE=4 SV=1//  
XLOC\_0869sp|Q42962|PGKY\_TOBAC Phosphoglycerate kinase, cytosolic OS=Nicotiana tabacum PE=2 SV=1//3.1343e-15  
XLOC\_0869sp|Q9S793|FRS8\_ARATH Protein FAR1-RELATED SEQUENCE 8 OS=Arabidopsis thaliana GN=FRS8 PE=2 SV=2//0  
XLOC\_0872sp|Q9FIJ2|NDUA2\_ARATH NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2 OS=Arabidopsis thaliana GN=At5g478

XLOC\_0872sp|P53811|PIPNB\_MOUSE Phosphatidylinositol transfer protein beta isoform OS=Mus musculus GN=Fitpnb PE=1 SV=2//1.08964  
XLOC\_0873-//  
XLOC\_0873sp|Q9LHN8|F6H1\_ARATH Feruloyl CoA ortho-hydroxylase 1 OS=Arabidopsis thaliana GN=F6' H1 PE=1 SV=1//2.29895e-11  
XLOC\_0873sp|Q9SKN3|CSPL6\_ARATH CASP-like protein At2g28370 OS=Arabidopsis thaliana GN=At2g28370 PE=2 SV=1//1.42919e-14  
XLOC\_0874sp|Q24K03|THUM1\_BOVIN THUMP domain-containing protein 1 OS=Bos taurus GN=THUMP1 PE=2 SV=1//8.12521e-11  
XLOC\_0874sp|Q7LHG5|YI31B\_YEAST Transposon Ty3-I Gag-Pol polyprotein OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) G  
XLOC\_0875sp|Q8BYR1|LCMT2\_MOUSE Leucine carboxyl methyltransferase 2 OS=Mus musculus GN=Lcmt2 PE=2 SV=4//2.13771e-13  
XLOC\_0876-//  
XLOC\_0876-//  
XLOC\_0876-//  
XLOC\_0880sp|Q03033|EF1A\_WHEAT Elongation factor 1-alpha OS=Triticum aestivum GN=TEF1 PE=2 SV=1//6.72522e-30  
XLOC\_0881-//  
XLOC\_0881sp|Q0PGJ6|AKRC9\_ARATH Aldo-keto reductase family 4 member C9 OS=Arabidopsis thaliana GN=AKR4C9 PE=1 SV=1//1.80502e-15  
XLOC\_0882sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=Oryza sativa subsp  
XLOC\_0882-//  
XLOC\_0882sp|P25862|TBB1\_AVESA Tubulin beta-1 chain (Fragment) OS=Avena sativa GN=TUBB1 PE=2 SV=1//1.83314e-62  
XLOC\_0886-//  
XLOC\_0886sp|Q9SHJ8|HIBC8\_ARATH 3-hydroxyisobutyryl-CoA hydrolase-like protein 5 OS=Arabidopsis thaliana GN=At1g06550 PE=2 SV=2  
XLOC\_0887sp|Q7TS68|NSUN6\_MOUSE Putative methyltransferase NSUN6 OS=Mus musculus GN=Nsun6 PE=2 SV=2//3.62167e-07  
XLOC\_0887-//  
XLOC\_0889sp|Q5XF59|HIBC4\_ARATH 3-hydroxyisobutyryl-CoA hydrolase-like protein 1, mitochondrial OS=Arabidopsis thaliana GN=At3g  
XLOC\_0890sp|Q93ZR1|ELP3\_ARATH Elongator complex protein 3 OS=Arabidopsis thaliana GN=HAG3 PE=1 SV=1//0  
XLOC\_0890sp|A5PK39|TPP2\_BOVIN Tripeptidyl-peptidase 2 OS=Bos taurus GN=TPP2 PE=2 SV=1//5.85208e-25  
XLOC\_0890sp|Q9LYP4|BAG3\_ARATH BAG family molecular chaperone regulator 3 OS=Arabidopsis thaliana GN=BAG3 PE=1 SV=1//2.71143e-1  
XLOC\_0890sp|Q9FJ90|ERF25\_ARATH Ethylene-responsive transcription factor ERF025 OS=Arabidopsis thaliana GN=ERF025 PE=2 SV=1//5.  
XLOC\_0890sp|Q8VYB5|AMSH1\_ARATH AMSH-like ubiquitin thioesterase 1 OS=Arabidopsis thaliana GN=AMSH1 PE=2 SV=1//1.24464e-44  
XLOC\_0891sp|Q0IU52|ASP1\_ORYSJ Aspartic proteinase Asp1 OS=Oryza sativa subsp. japonica GN=ASP1 PE=2 SV=1//1.16384e-85  
XLOC\_0894sp|O81148|PSA4\_ARATH Proteasome subunit alpha type-4 OS=Arabidopsis thaliana GN=PAC1 PE=1 SV=1//1.95129e-159  
XLOC\_0894sp|P37707|B2\_DAUCA B2 protein OS=Daucus carota PE=2 SV=1//8.55382e-90  
XLOC\_0895-//  
XLOC\_0897sp|Q8VZJ9|CRCK2\_ARATH Calmodulin-binding receptor-like cytoplasmic kinase 2 OS=Arabidopsis thaliana GN=CRCK2 PE=2 SV=  
XLOC\_0898sp|Q9FPW6|POB1\_ARATH BTB/POZ domain-containing protein POB1 OS=Arabidopsis thaliana GN=POB1 PE=2 SV=2//2.07834e-73  
XLOC\_0899sp|Q9C671|P4K2B\_ARATH Probable phosphatidylinositol 4-kinase type 2-beta At1g26270 OS=Arabidopsis thaliana GN=At1g262  
XLOC\_0899sp|Q84JU4|IBR5\_ARATH Protein-tyrosine-phosphatase IBR5 OS=Arabidopsis thaliana GN=IBR5 PE=1 SV=1//4.1338e-18  
XLOC\_0901-//

XLOC\_0902-//  
XLOC\_0904sp|P25093|FAAA\_RAT Fumarylacetoacetase OS=Rattus norvegicus GN=Fah PE=1 SV=1//6.72224e-13  
XLOC\_0904sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.15  
XLOC\_0905sp|Q8LDV3|Y4320\_ARATH Uncharacterized protein At4g13200, chloroplastic OS=Arabidopsis thaliana GN=At4g13200 PE=1 SV=2  
XLOC\_0909sp|Q3E6Q1|PPR32\_ARATH Pentatricopeptide repeat-containing protein At1g11290 OS=Arabidopsis thaliana GN=PCMP-H40 PE=2  
XLOC\_0910-//  
XLOC\_0910-//  
XLOC\_0912sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=Arabidopsis thaliana GN=AtMg00310 PE=4 SV=1//  
XLOC\_0915-//  
XLOC\_0916sp|Q8H1U4|APC5\_ARATH Anaphase-promoting complex subunit 5 OS=Arabidopsis thaliana GN=APC5 PE=2 SV=1//2.60373e-74  
XLOC\_0916sp|Q38942|RAE1L\_ARATH Rael-like protein At1g80670 OS=Arabidopsis thaliana GN=At1g80670 PE=2 SV=2//6.63155e-33  
XLOC\_0918-//  
XLOC\_0919sp|A6P6V9|CBDAS\_CANSA Cannabidiolic acid synthase OS=Cannabis sativa GN=CBDAS PE=1 SV=1//5.48004e-170  
XLOC\_0919sp|Q8W234|SEUSS\_ARATH Transcriptional corepressor SEUSS OS=Arabidopsis thaliana GN=SEU PE=1 SV=1//1.69617e-94  
XLOC\_0919-//  
XLOC\_0919sp|Q9SIA1|MATE8\_ARATH MATE efflux family protein 8 OS=Arabidopsis thaliana GN=DTXL4 PE=2 SV=2//1.14672e-09  
XLOC\_0921sp|Q08467|CSK21\_ARATH Casein kinase II subunit alpha-1 OS=Arabidopsis thaliana GN=CKA1 PE=1 SV=3//1.25878e-84  
XLOC\_0924sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.98  
XLOC\_0925sp|Q7XVA8|RIP1\_ORYSJ Putative ripening-related protein 1 OS=Oryza sativa subsp. japonica GN=Os04g0364800 PE=3 SV=2//6  
XLOC\_0927sp|Q0DBU5|RH31\_ORYSJ DEAD-box ATP-dependent RNA helicase 31 OS=Oryza sativa subsp. japonica GN=Os06g0526600 PE=3 SV=2  
XLOC\_0927-//  
XLOC\_0928-//  
XLOC\_0928-//  
XLOC\_0928-//  
XLOC\_0928sp|Q9FZ19|PPR5\_ARATH Putative pentatricopeptide repeat-containing protein At1g02420 OS=Arabidopsis thaliana GN=At1g02  
XLOC\_0929sp|O35900|LSM2\_MOUSE U6 snRNA-associated Sm-like protein LSm2 OS=Mus musculus GN=Lsm2 PE=2 SV=1//1.41262e-24  
XLOC\_0931sp|Q8VZU9|DERL1\_ARATH Derlin-1 OS=Arabidopsis thaliana GN=DER1 PE=2 SV=1//9.93508e-95  
XLOC\_0933sp|Q9SF24|LOR10\_ARATH Protein LURP-one-related 10 OS=Arabidopsis thaliana GN=At3g11740 PE=2 SV=2//1.1769e-10  
XLOC\_0934sp|Q8LDV3|Y4320\_ARATH Uncharacterized protein At4g13200, chloroplastic OS=Arabidopsis thaliana GN=At4g13200 PE=1 SV=2  
XLOC\_0938sp|Q6GQ69|FAF2B\_XENLA FAS-associated factor 2-B OS=Xenopus laevis GN=faf2-b PE=2 SV=1//5.68193e-11  
XLOC\_0938sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein At1g65750 OS=Arabidopsis thaliana GN=At1g65750 PE=3 SV=1//2.738  
XLOC\_0938sp|Q9M612|NACA\_PINTA Nascent polypeptide-associated complex subunit alpha-like protein OS=Pinus taeda PE=2 SV=1//1.02  
XLOC\_0939sp|Q9UQ35|SRRM2\_HUMAN Serine/arginine repetitive matrix protein 2 OS=Homo sapiens GN=SRRM2 PE=1 SV=2//2.87384e-12  
XLOC\_0939sp|P49105|G6PI\_MAIZE Glucose-6-phosphate isomerase, cytosolic OS=Zea mays GN=PHI1 PE=2 SV=1//6.97446e-11  
XLOC\_0945-//



XLOC\_0948-/-  
XLOC\_0948-/-  
XLOC\_0948-/-  
XLOC\_0953-/-  
XLOC\_0954-/-  
XLOC\_0955sp|Q2L907|PSAA\_GOSHI Photosystem I P700 chlorophyll a apoprotein A1 OS=Gossypium hirsutum GN=psaA PE=3 SV=1//1.61302e  
XLOC\_0955-/-  
XLOC\_0958sp|Q9LLC1|BCCP2\_ARATH Biotin carboxyl carrier protein of acetyl-CoA carboxylase 2, chloroplastic OS=Arabidopsis thali  
XLOC\_0960sp|Q5E964|PSD13\_BOVIN 26S proteasome non-ATPase regulatory subunit 13 OS=Bos taurus GN=PSMD13 PE=2 SV=1//1.40819e-10  
XLOC\_0961-/-  
XLOC\_0963sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=Arabidopsis thaliana GN=AtMg00310 PE=4 SV=1//  
XLOC\_0965-/-  
XLOC\_0965sp|Q9LK39|AAE16\_ARATH Probable acyl-activating enzyme 16, chloroplastic OS=Arabidopsis thaliana GN=AAE16 PE=2 SV=1//2  
XLOC\_0965sp|P42856|ZB14\_MAIZE 14 kDa zinc-binding protein OS=Zea mays GN=ZBP14 PE=1 SV=1//3.10597e-09  
XLOC\_0965sp|Q8W471|AAE15\_ARATH Long-chain-fatty-acid--[acyl-carrier-protein] ligase AEE15, chloroplastic OS=Arabidopsis thalia  
XLOC\_0968sp|P93732|PIP\_ARATH Proline iminopeptidase OS=Arabidopsis thaliana GN=PIP PE=2 SV=3//1.23826e-150  
XLOC\_0968sp|P33154|PR1\_ARATH Pathogenesis-related protein 1 OS=Arabidopsis thaliana GN=At2g14610 PE=1 SV=1//3.86737e-72  
XLOC\_0968sp|Q9FKS4|ATR\_ARATH Serine/threonine-protein kinase ATR OS=Arabidopsis thaliana GN=ATR PE=2 SV=2//1.17767e-15  
XLOC\_0968-/-  
XLOC\_0968sp|Q5TAQ9|DCAF8\_HUMAN DDB1- and CUL4-associated factor 8 OS=Homo sapiens GN=DCAF8 PE=1 SV=1//3.1793e-21  
XLOC\_0968-/-  
XLOC\_0968sp|Q9ZUP2|RECA3\_ARATH DNA repair protein recA homolog 3, mitochondrial OS=Arabidopsis thaliana GN=At2g19490 PE=2 SV=2  
XLOC\_0968sp|P81393|MYB08\_ANTMA Myb-related protein 308 OS=Antirrhinum majus GN=MYB308 PE=2 SV=1//1.30539e-48  
XLOC\_0968-/-  
XLOC\_0969sp|Q38899|ORC2\_ARATH Origin recognition complex subunit 2 OS=Arabidopsis thaliana GN=ORC2 PE=1 SV=1//1.43292e-07  
XLOC\_0970-/-  
XLOC\_0970sp|P84752|PERA\_ALOVR Peroxidase A (Fragments) OS=Aloe vera PE=1 SV=1//1.29806e-08  
XLOC\_0970sp|Q9M086|DCAF1\_ARATH DDB1- and CUL4-associated factor homolog 1 OS=Arabidopsis thaliana GN=DCAF1 PE=1 SV=2//1.99699e  
XLOC\_0971sp|Q8L649|BB\_ARATH E3 ubiquitin ligase BIG BROTHER OS=Arabidopsis thaliana GN=BB PE=1 SV=1//4.18349e-08  
XLOC\_0972-/-  
XLOC\_0974sp|O80507|CSK2E\_ARATH Putative casein kinase II subunit beta-4 OS=Arabidopsis thaliana GN=At2g44680 PE=2 SV=1//8.1753  
XLOC\_0974sp|P40228|CSK2B\_ARATH Casein kinase II subunit beta OS=Arabidopsis thaliana GN=CKB1 PE=1 SV=1//7.31049e-64  
XLOC\_0976sp|004895|BADH\_AMAHP Betaine aldehyde dehydrogenase, chloroplastic OS=Amaranthus hypochondriacus GN=BADH4 PE=3 SV=1//  
XLOC\_0978sp|Q5RCV3|NBN\_PONAB Nibrin OS=Pongo abelii GN=NBN PE=2 SV=2//1.92424e-08  
XLOC\_0978-/-

XLOC\_0979-/-  
XLOC\_0983-/-  
XLOC\_0984-/-  
XLOC\_0985sp|Q9M2C9|SKIP4\_ARATH F-box/kelch-repeat protein SKIP4 OS=Arabidopsis thaliana GN=SKIP4 PE=1 SV=1//2.80676e-120  
XLOC\_0985sp|Q93ZQ5|SPXM3\_ARATH SPX domain-containing membrane protein At4g22990 OS=Arabidopsis thaliana GN=At4g22990 PE=2 SV=2  
XLOC\_0986-/-  
XLOC\_0987-/-  
XLOC\_0990sp|Q9FH99|FB302\_ARATH F-box protein At5g67140 OS=Arabidopsis thaliana GN=At5g67140 PE=2 SV=1//4.8701e-110  
XLOC\_0991sp|Q9C5W3|NADK2\_ARATH NAD kinase 2, chloroplastic OS=Arabidopsis thaliana GN=NADK2 PE=1 SV=1//4.23124e-19  
XLOC\_0991-/-  
XLOC\_0994-/-  
XLOC\_0994sp|Q9M2F1|RS272\_ARATH 40S ribosomal protein S27-2 OS=Arabidopsis thaliana GN=RPS27B PE=2 SV=2//2.89239e-43  
XLOC\_0996sp|Q7YJX2|PSAA\_CALFG Photosystem I P700 chlorophyll a apoprotein A1 OS=Calycanthus floridus var. glaucus GN=psaA PE=3  
XLOC\_0997-/-  
XLOC\_0998-/-  
XLOC\_0998sp|P11369|POL2\_MOUSE Retrovirus-related Pol polyprotein LINE-1 OS=Mus musculus GN=Pol PE=1 SV=2//2.33245e-24  
XLOC\_0999sp|Q2V3H0|PP322\_ARATH Pentatricopeptide repeat-containing protein At4g18975, chloroplastic OS=Arabidopsis thaliana GN=PP322 PE=1 SV=1//2.11111e-10  
XLOC\_1008-/-  
XLOC\_1009sp|P80093|PDS\_CAPAN 15-cis-phytoene desaturase, chloroplastic/chromoplastic OS=Capsicum annum GN=PDS PE=1 SV=1//1.49  
XLOC\_1010sp|Q8LFH6|ADF12\_ARATH Actin-depolymerizing factor 12 OS=Arabidopsis thaliana GN=ADF12 PE=2 SV=2//4.29836e-14  
XLOC\_1010sp|Q8L4H4|NORK\_MEDTR Nodulation receptor kinase OS=Medicago truncatula GN=NORK PE=1 SV=2//2.99491e-48  
XLOC\_1010sp|Q8LKZ1|NORK\_PEA Nodulation receptor kinase OS=Pisum sativum GN=NORK PE=1 SV=1//3.27163e-65  
XLOC\_1011sp|P28188|RAD2A\_ARATH Ras-related protein RABD2a OS=Arabidopsis thaliana GN=RABD2A PE=1 SV=3//1.1752e-47  
XLOC\_1012-/-  
XLOC\_1013sp|Q7XLX6|S1FA2\_ORYSJ DNA-binding protein S1FA2 OS=Oryza sativa subsp. japonica GN=S1FA2 PE=3 SV=2//4.58663e-06  
XLOC\_1013sp|P69322|UBIQP\_PEA Polyubiquitin OS=Pisum sativum GN=PU1 PE=2 SV=2//0  
XLOC\_1015-/-  
XLOC\_1016-/-  
XLOC\_1016-/-  
XLOC\_1018sp|O22187|Y2232\_ARATH Probable receptor-like protein kinase At2g23200 OS=Arabidopsis thaliana GN=At2g23200 PE=2 SV=1//1.11111e-10  
XLOC\_1018-/-  
XLOC\_1018sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.96  
XLOC\_1020sp|Q9ZTN2|ERD2\_PETHY ER lumen protein retaining receptor OS=Petunia hybrida GN=ERD2 PE=2 SV=1//1.18494e-106  
XLOC\_1021sp|Q39676|DCAM1\_DIACA S-adenosylmethionine decarboxylase proenzyme 1 OS=Dianthus caryophyllus GN=SAMDC1 PE=2 SV=1//3.11111e-10  
XLOC\_1023sp|P81392|MYB06\_ANTMA Myb-related protein 306 OS=Antirrhinum majus GN=MYB306 PE=2 SV=1//2.90288e-78

XLOC\_1023sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.01  
XLOC\_1023-//-  
XLOC\_1024sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.23  
XLOC\_1025sp|Q9JIX0|ENY2\_MOUSE Enhancer of yellow 2 transcription factor homolog OS=Mus musculus GN=Eny2 PE=2 SV=1//6.86511e-20  
XLOC\_1027sp|P38385|SC61G\_ORYSJ Protein transport protein Sec61 subunit gamma OS=Oryza sativa subsp. japonica GN=Os02g0178400 F  
XLOC\_1029-//-  
XLOC\_1029sp|Q9SK82|U85A1\_ARATH UDP-glycosyltransferase 85A1 OS=Arabidopsis thaliana GN=UGT85A1 PE=1 SV=1//1.42199e-78  
XLOC\_1029-//-  
XLOC\_1029-//-  
XLOC\_1030sp|Q04050|NU4M\_BRACM NADH-ubiquinone oxidoreductase chain 4 OS=Brassica campestris GN=ND4 PE=3 SV=1//2.80486e-56  
XLOC\_1030sp|A9X7L0|ANMT\_RUTGR Anthranilate N-methyltransferase OS=Ruta graveolens PE=1 SV=1//4.20658e-10  
XLOC\_1030sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//2.627  
XLOC\_1033sp|Q9LK39|AAE16\_ARATH Probable acyl-activating enzyme 16, chloroplastic OS=Arabidopsis thaliana GN=AAE16 PE=2 SV=1//0  
XLOC\_1034sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//1.29148e-08  
XLOC\_1035sp|O64644|SAP18\_ARATH Histone deacetylase complex subunit SAP18 OS=Arabidopsis thaliana GN=At2g45640 PE=1 SV=1//3.329  
XLOC\_1035-//-  
XLOC\_1035sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.70  
XLOC\_1037-//-  
XLOC\_1037sp|Q8L736|SKI11\_ARATH F-box/kelch-repeat protein SKIP11 OS=Arabidopsis thaliana GN=SKIP11 PE=1 SV=2//1.89485e-171  
XLOC\_1040-//-  
XLOC\_1041-//-  
XLOC\_1041sp|O04057|ASPR\_CUCPE Aspartic proteinase OS=Cucurbita pepo PE=2 SV=1//6.98998e-23  
XLOC\_1041sp|Q7K4W1|CDKAL\_DROME Threonylcarbamoyladenosine tRNA methylthiotransferase OS=Drosophila melanogaster GN=CG6550 PE=2  
XLOC\_1045sp|Q67YU0|CKX5\_ARATH Cytokinin dehydrogenase 5 OS=Arabidopsis thaliana GN=CKX5 PE=2 SV=1//1.24299e-73  
XLOC\_1045sp|Q84J37|LAC15\_ARATH Laccase-15 OS=Arabidopsis thaliana GN=TT10 PE=1 SV=1//1.21299e-10  
XLOC\_1045sp|POC8Z0|Y8359\_ORYSI Uncharacterized protein OsI\_027940 OS=Oryza sativa subsp. indica GN=OsI\_027940 PE=1 SV=2//1.167  
XLOC\_1050sp|Q9FIG9|ARC6\_ARATH Protein ACCUMULATION AND REPLICATION OF CHLOROPLASTS 6, chloroplastic OS=Arabidopsis thaliana GN  
XLOC\_1052-//-  
XLOC\_1053sp|Q9M7Q4|AI5L5\_ARATH ABSCISIC ACID-INSENSITIVE 5-like protein 5 OS=Arabidopsis thaliana GN=ABF2 PE=1 SV=1//2.89329e-  
XLOC\_1055sp|Q6VAF6|TBB6\_GOSHI Tubulin beta-6 chain OS=Gossypium hirsutum PE=2 SV=1//0  
XLOC\_1056sp|Q9FH37|ILR3\_ARATH Transcription factor ILR3 OS=Arabidopsis thaliana GN=ILR3 PE=1 SV=1//1.92792e-35  
XLOC\_1057sp|P42620|YQJG\_ECOLI Glutathionyl-hydroquinone reductase YqjG OS=Escherichia coli (strain K12) GN=yqjG PE=1 SV=1//7.7  
XLOC\_1058-//-  
XLOC\_1058-//-  
XLOC\_1058sp|Q93Y37|MNS3\_ARATH Mannosyl-oligosaccharide 1,2-alpha-mannosidase MNS3 OS=Arabidopsis thaliana GN=MNS3 PE=2 SV=1//6

XLOC\_1058sp|Q93Y37|MNS3\_ARATH Mannosyl-oligosaccharide 1,2-alpha-mannosidase MNS3 OS=Arabidopsis thaliana GN=MNS3 PE=2 SV=1//2  
XLOC\_1061-//  
XLOC\_1062sp|P42055|VDAC1\_SOLTU Mitochondrial outer membrane protein porin of 34 kDa OS=Solanum tuberosum PE=1 SV=2//1.62231e-1  
XLOC\_1064sp|Q93ZT6|IF4G1\_ARATH Eukaryotic translation initiation factor isoform 4G-1 OS=Arabidopsis thaliana GN=EIF(ISO)4G1 PE  
XLOC\_1064sp|Q9LXD1|SGS3\_ARATH Protein SUPPRESSOR OF GENE SILENCING 3 OS=Arabidopsis thaliana GN=SGS3 PE=1 SV=1//8.60482e-174  
XLOC\_1064sp|Q9SUV1|BRT1\_ARATH Adenine nucleotide transporter BT1, chloroplastic/mitochondrial OS=Arabidopsis thaliana GN=BT1 P  
XLOC\_1064sp|Q5SMK6|P2C54\_ORYSJ Probable protein phosphatase 2C 54 OS=Oryza sativa subsp. japonica GN=Os06g0179700 PE=2 SV=1//3  
XLOC\_1064-//  
XLOC\_1064sp|Q9SZE1|3HID1\_ARATH Probable 3-hydroxyisobutyrate dehydrogenase-like 1, mitochondrial OS=Arabidopsis thaliana GN=At  
XLOC\_1066sp|Q9LY41|ATL4\_ARATH E3 ubiquitin-protein ligase ATL4 OS=Arabidopsis thaliana GN=ATL4 PE=1 SV=1//6.25306e-09  
XLOC\_1066sp|P93022|ARFG\_ARATH Auxin response factor 7 OS=Arabidopsis thaliana GN=ARF7 PE=1 SV=2//0  
XLOC\_1068-//  
XLOC\_1069sp|Q0JBP5|LOGL6\_ORYSJ Probable cytokinin riboside 5'-monophosphate phosphoribohydrolase LOGL6 OS=Oryza sativa su  
XLOC\_1073sp|Q40412|ABA2\_NICPL Zeaxanthin epoxidase, chloroplastic OS=Nicotiana glauca GN=ABA2 PE=1 SV=1//3.95127e-08  
XLOC\_1075sp|Q9ZUX4|UMP2\_ARATH Uncharacterized protein At2g27730, mitochondrial OS=Arabidopsis thaliana GN=At2g27730 PE=1 SV=1/  
XLOC\_1075sp|P28644|ROC1\_SPIOL 28 kDa ribonucleoprotein, chloroplastic OS=Spinacia oleracea PE=1 SV=1//3.65772e-06  
XLOC\_1075-//  
XLOC\_1076sp|Q9S9K4|ASPL2\_ARATH Aspartic proteinase-like protein 2 OS=Arabidopsis thaliana GN=At1g65240 PE=1 SV=2//3.74336e-37  
XLOC\_1076-//  
XLOC\_1076sp|Q9ZVR5|PP2B2\_ARATH Putative F-box protein PP2-B2 OS=Arabidopsis thaliana GN=PP2B2 PE=2 SV=2//7.67769e-50  
XLOC\_1076sp|Q3E6P4|FB95\_ARATH F-box protein At2g02240 OS=Arabidopsis thaliana GN=At2g02240 PE=2 SV=1//1.20853e-39  
XLOC\_1076sp|Q9SCQ2|UPL7\_ARATH E3 ubiquitin-protein ligase UPL7 OS=Arabidopsis thaliana GN=UPL7 PE=2 SV=1//4.12866e-42  
XLOC\_1076-//  
XLOC\_1076sp|Q6BQ20|ATG13\_DEBHA Autophagy-related protein 13 OS=Debaryomyces hansenii (strain ATCC 36239 / CBS 767 / JCM 1990 /  
XLOC\_1077sp|Q39202|RLK1\_ARATH G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 OS=Arabidopsis thaliana GN=RL  
XLOC\_1077sp|Q39202|RLK1\_ARATH G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 OS=Arabidopsis thaliana GN=RL  
XLOC\_1079-//  
XLOC\_1080sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein At1g65750 OS=Arabidopsis thaliana GN=At1g65750 PE=3 SV=1//5.052  
XLOC\_1081sp|Q8GXN6|VP201\_ARATH Vacuolar protein sorting-associated protein 20 homolog 1 OS=Arabidopsis thaliana GN=VPS20.1 PE=  
XLOC\_1081sp|Q93WV4|WRK71\_ARATH Probable WRKY transcription factor 71 OS=Arabidopsis thaliana GN=WRKY71 PE=2 SV=1//9.72917e-49  
XLOC\_1081sp|Q7DM39|PSBP1\_TOBAC Oxygen-evolving enhancer protein 2-1, chloroplastic OS=Nicotiana tabacum GN=PSBP1 PE=3 SV=2//7.  
XLOC\_1081-//  
XLOC\_1082sp|Q9XGM1|VATD\_ARATH V-type proton ATPase subunit D OS=Arabidopsis thaliana GN=VHA-D PE=1 SV=2//8.51853e-33  
XLOC\_1083sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.84006e-91  
XLOC\_1083-//

XLOC\_1084sp|POC031|RUB2\_ORYSJ Ubiquitin-NEDD8-like protein RUB2 OS=*Oryza sativa* subsp. *japonica* GN=RUB2 PE=2 SV=2//8.67301e-16  
XLOC\_1084sp|POC073|RUB1\_DESAN Ubiquitin-NEDD8-like protein RUB1 OS=*Deschampsia antarctica* GN=RUB1 PE=2 SV=2//1.43338e-16  
XLOC\_1086sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=*Arabidopsis thaliana* GN=AtMg00310 PE=4 SV=1//  
XLOC\_1088sp|P04146|COPIA\_DROME Copia protein OS=*Drosophila melanogaster* GN=GIP PE=1 SV=3//9.0029e-12  
XLOC\_1088sp|Q9SCX9|GPDA1\_ARATH Glycerol-3-phosphate dehydrogenase [NAD(+)] 1, chloroplastic OS=*Arabidopsis thaliana* GN=DHAPRD  
XLOC\_1090sp|Q0WMN5|Y3913\_ARATH Uncharacterized protein At3g49140 OS=*Arabidopsis thaliana* GN=At3g49140 PE=1 SV=2//5.2295e-09  
XLOC\_1094sp|Q9C9F4|COLX\_ARATH Putative zinc finger protein At1g68190 OS=*Arabidopsis thaliana* GN=At1g68190 PE=2 SV=1//1.02331e-  
XLOC\_1094sp|Q9LNG5|PPP7L\_ARATH Serine/threonine-protein phosphatase 7 long form homolog OS=*Arabidopsis thaliana* GN=At1g48120 P  
XLOC\_1096sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein At1g65750 OS=*Arabidopsis thaliana* GN=At1g65750 PE=3 SV=1//5.625  
XLOC\_1097sp|Q9VTY4|KXDL1\_DROME KxDL motif-containing protein CG10681 OS=*Drosophila melanogaster* GN=CG10681 PE=2 SV=1//3.30051e  
XLOC\_1097sp|Q8GYB1|NUD15\_ARATH Nudix hydrolase 15, mitochondrial OS=*Arabidopsis thaliana* GN=NUDT15 PE=1 SV=2//1.70777e-80  
XLOC\_1099-//  
XLOC\_1099sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=*Nicotiana tabacum* PE=2 SV=1//2.79  
XLOC\_1100sp|Q9SHS7|BSL3\_ARATH Serine/threonine-protein phosphatase BSL3 OS=*Arabidopsis thaliana* GN=BSL3 PE=1 SV=2//3.4444e-18  
XLOC\_1101sp|P37224|MAOM\_AMAHP NAD-dependent malic enzyme 65 kDa isoform, mitochondrial OS=*Amaranthus hypochondriacus* PE=1 SV=1  
XLOC\_1101sp|Q8LBZ4|OTU\_ARATH OTU domain-containing protein At3g57810 OS=*Arabidopsis thaliana* GN=At3g57810 PE=2 SV=1//2.45467e-  
XLOC\_1101-//  
XLOC\_1104-//  
XLOC\_1108-//  
XLOC\_1112sp|B3GS44|LRE\_ARATH GPI-anchored protein LORELEI OS=*Arabidopsis thaliana* GN=LRE PE=2 SV=1//4.85468e-21  
XLOC\_1117sp|Q6R8G7|PHO13\_ARATH Phosphate transporter PHO1 homolog 3 OS=*Arabidopsis thaliana* GN=PHO1;H3 PE=2 SV=2//0  
XLOC\_1117-//  
XLOC\_1117sp|Q2L955|NU4C\_GOSHI NAD(P)H-quinone oxidoreductase chain 4, chloroplastic OS=*Gossypium hirsutum* GN=ndhD PE=3 SV=1//1  
XLOC\_1117-//  
XLOC\_1119-//  
XLOC\_1119sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=*Nicotiana tabacum* PE=2 SV=1//5.07  
XLOC\_1119-//  
XLOC\_1120sp|Q94BR4|PR19A\_ARATH Pre-mRNA-processing factor 19 homolog 1 OS=*Arabidopsis thaliana* GN=PRP19A PE=1 SV=1//2.26419e-0  
XLOC\_1120-//  
XLOC\_1123sp|O23712|PSA1B\_ARATH Proteasome subunit alpha type-1-B OS=*Arabidopsis thaliana* GN=PAF2 PE=1 SV=2//2.36057e-155  
XLOC\_1124sp|Q9MOX9|4CLL7\_ARATH 4-coumarate--CoA ligase-like 7 OS=*Arabidopsis thaliana* GN=4CLL7 PE=1 SV=1//8.58044e-38  
XLOC\_1124sp|P74038|RSMI\_SYNY3 Ribosomal RNA small subunit methyltransferase I OS=*Synechocystis* sp. (strain PCC 6803 / Kazusa)  
XLOC\_1125-//  
XLOC\_1126sp|Q9SYT0|ANXD1\_ARATH Annexin D1 OS=*Arabidopsis thaliana* GN=ANN1 PE=1 SV=1//5.38625e-151  
XLOC\_1131sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=*Oryza sativa* subsp

XLOC\_1132sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.57  
XLOC\_1135sp|Q8L8B8|LOG3\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG3 OS=Arabidopsis thaliana GN=LC  
XLOC\_1138-//-  
XLOC\_1139-//-  
XLOC\_1140-//-  
XLOC\_1140-//-  
XLOC\_1142-//-  
XLOC\_1144sp|Q6AT26|CESA1\_ORYSJ Probable cellulose synthase A catalytic subunit 1 [UDP-forming] OS=Oryza sativa subsp. japonica  
XLOC\_1144sp|O48946|CESA1\_ARATH Cellulose synthase A catalytic subunit 1 [UDP-forming] OS=Arabidopsis thaliana GN=CESA1 PE=1 SV  
XLOC\_1144sp|O22969|Y2416\_ARATH Uncharacterized protein At2g34160 OS=Arabidopsis thaliana GN=At2g34160 PE=1 SV=1//2.76133e-50  
XLOC\_1144sp|Q9XI33|WIN1\_ARATH Ethylene-responsive transcription factor WIN1 OS=Arabidopsis thaliana GN=WIN1 PE=2 SV=1//3.48496  
XLOC\_1146-//-  
XLOC\_1149sp|Q53YF3|SPC3B\_ARATH Signal peptidase complex subunit 3B OS=Arabidopsis thaliana GN=At5g27430 PE=2 SV=1//6.78868e-93  
XLOC\_1150sp|P28186|RAE1C\_ARATH Ras-related protein RAB1c OS=Arabidopsis thaliana GN=RAE1C PE=1 SV=1//2.75165e-27  
XLOC\_1152-//-  
XLOC\_1153sp|Q9M9M9|NDUAC\_ARATH Probable NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 12 OS=Arabidopsis thaliana  
XLOC\_1156-//-  
XLOC\_1156sp|Q9LUN2|YSL5\_ARATH Probable metal-nicotianamine transporter YSL5 OS=Arabidopsis thaliana GN=YSL5 PE=1 SV=1//1.51845  
XLOC\_1156sp|Q9V3X4|BSCL2\_DROME Seipin OS=Drosophila melanogaster GN=Seipin PE=2 SV=1//2.84671e-06  
XLOC\_1156sp|Q9FFD0|PIN8\_ARATH Putative auxin efflux carrier component 8 OS=Arabidopsis thaliana GN=PIN8 PE=2 SV=2//6.19844e-17  
XLOC\_1156sp|Q9AT00|AB13I\_ARATH Protein TRIGALACTOSYLDIACYLGLYCEROL 3, chloroplastic OS=Arabidopsis thaliana GN=AB13I PE=1 SV=1/  
XLOC\_1156sp|Q9FZ87|GH317\_ARATH Indole-3-acetic acid-amido synthetase GH3.17 OS=Arabidopsis thaliana GN=GH3.17 PE=1 SV=1//1.841  
XLOC\_1156sp|O81028|PP171\_ARATH Pentatricopeptide repeat-containing protein At2g26790, mitochondrial OS=Arabidopsis thaliana GN  
XLOC\_1157-//-  
XLOC\_1159sp|Q24733|ACT\_DICVI Actin (Fragment) OS=Dictyocaulus viviparus PE=3 SV=1//9.25161e-08  
XLOC\_1160sp|Q9SJG2|Y2296\_ARATH Probable receptor-like protein kinase At2g42960 OS=Arabidopsis thaliana GN=At2g42960 PE=2 SV=1/  
XLOC\_1161sp|Q94A68|Y1669\_ARATH Uncharacterized oxidoreductase Atlg06690, chloroplastic OS=Arabidopsis thaliana GN=Atlg06690 PE  
XLOC\_1162sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.93813e-90  
XLOC\_1165sp|Q15751|HERC1\_HUMAN Probable E3 ubiquitin-protein ligase HERC1 OS=Homo sapiens GN=HERC1 PE=1 SV=2//2.11674e-06  
XLOC\_1167sp|Q6J163|5NG4\_PINTA Auxin-induced protein 5NG4 OS=Pinus taeda PE=2 SV=1//1.25659e-06  
XLOC\_1167sp|Q6AZB8|HARB1\_DANRE Putative nuclease HARB1 OS=Danio rerio GN=harbil PE=2 SV=1//4.03962e-29  
XLOC\_1170sp|Q64FQ2|PID2\_ARATH Protein kinase PINOID 2 OS=Arabidopsis thaliana GN=PID2 PE=1 SV=1//2.07607e-29  
XLOC\_1171sp|Q940T9|COL4\_ARATH Zinc finger protein CONSTANS-LIKE 4 OS=Arabidopsis thaliana GN=COL4 PE=2 SV=2//4.11251e-06  
XLOC\_1172sp|Q93Y94|RPOT1\_NICSY DNA-directed RNA polymerase 1, mitochondrial OS=Nicotiana sylvestris GN=RPOT1 PE=2 SV=1//3.1620  
XLOC\_1174-//-

XLOC\_1178sp|P48011|RPAB4\_SCHPO DNA-directed RNA polymerases I, II, and III subunit RPABC4 OS=Schizosaccharomyces pombe (strain  
XLOC\_1180sp|P50346|RLA0\_SOYBN 60S acidic ribosomal protein P0 OS=Glycine max PE=2 SV=1//0  
XLOC\_1180sp|POC8Q9|Y5902\_ARATH Uncharacterized protein At5g19025 OS=Arabidopsis thaliana GN=At5g19025 PE=2 SV=3//6.92735e-19  
XLOC\_1181sp|Q9LPK5|CML44\_ARATH Probable calcium-binding protein CML44 OS=Arabidopsis thaliana GN=CML44 PE=2 SV=2//2.82035e-31  
XLOC\_1186sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//4.12966e-19  
XLOC\_1189-//  
XLOC\_1190sp|Q09020|PR4\_PHAVU Wound-induced basic protein OS=Phaseolus vulgaris GN=PR4 PE=2 SV=1//1.31989e-23  
XLOC\_1191sp|082662|SUCB\_ARATH Succinyl-CoA ligase [ADP-forming] subunit beta, mitochondrial OS=Arabidopsis thaliana GN=At2g204  
XLOC\_1194sp|P52855|RLA1\_MAIZE 60S acidic ribosomal protein P1 OS=Zea mays GN=RPP1A PE=1 SV=1//4.73096e-20  
XLOC\_1194-//  
XLOC\_1196-//  
XLOC\_1196sp|Q500U8|TKPR1\_ARATH Tetraketide alpha-pyrone reductase 1 OS=Arabidopsis thaliana GN=TKPR1 PE=2 SV=1//4.57126e-48  
XLOC\_1196-//  
XLOC\_1199-//  
XLOC\_1200sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.16  
XLOC\_1207sp|Q5A3M6|MCD4\_CANAL GPI ethanolamine phosphate transferase 1 OS=Candida albicans (strain SC5314 / ATCC MYA-2876) GN=  
XLOC\_1208sp|Q8N2Z9|CENPS\_HUMAN Centromere protein S OS=Homo sapiens GN=APITD1 PE=1 SV=1//6.39422e-07  
XLOC\_1209-//  
XLOC\_1209-//  
XLOC\_1209sp|Q9C8Z4|HEAT1\_ARATH Uncharacterized protein At3g06530 OS=Arabidopsis thaliana GN=At3g06530 PE=2 SV=3//7.80349e-81  
XLOC\_1209sp|Q9C8Z4|HEAT1\_ARATH Uncharacterized protein At3g06530 OS=Arabidopsis thaliana GN=At3g06530 PE=2 SV=3//3.08013e-48  
XLOC\_1209sp|Q91WD1|RPC4\_MOUSE DNA-directed RNA polymerase III subunit RPC4 OS=Mus musculus GN=Polr3d PE=2 SV=2//2.36469e-08  
XLOC\_1210sp|Q9LUJ5|EBP2\_ARATH Probable rRNA-processing protein EBP2 homolog OS=Arabidopsis thaliana GN=At3g22660 PE=2 SV=1//8.  
XLOC\_1210sp|Q9SWW6|CESA7\_ARATH Cellulose synthase A catalytic subunit 7 [UDP-forming] OS=Arabidopsis thaliana GN=CESA7 PE=1 SV=  
XLOC\_1211sp|Q8GW46|YAB5\_ARATH Axial regulator YABBY 5 OS=Arabidopsis thaliana GN=YAB5 PE=2 SV=1//3.06374e-50  
XLOC\_1211sp|Q940T9|COL4\_ARATH Zinc finger protein CONSTANS-LIKE 4 OS=Arabidopsis thaliana GN=COL4 PE=2 SV=2//1.50535e-92  
XLOC\_1212-//  
XLOC\_1212-//  
XLOC\_1212sp|P14009|14KD\_DAUCA 14 kDa proline-rich protein DC2.15 OS=Daucus carota PE=2 SV=1//2.12388e-28  
XLOC\_1212-//  
XLOC\_1213-//  
XLOC\_1213sp|Q13231|CHIT1\_HUMAN Chitotriosidase-1 OS=Homo sapiens GN=CHIT1 PE=1 SV=1//4.5683e-16  
XLOC\_1213sp|Q8VZ59|YUC6\_ARATH Flavin-containing monooxygenase YUCCA6 OS=Arabidopsis thaliana GN=YUC6 PE=2 SV=1//1.93566e-10  
XLOC\_1213sp|Q8LEM8|RL373\_ARATH 60S ribosomal protein L37-3 OS=Arabidopsis thaliana GN=RPL37C PE=3 SV=1//5.43463e-44  
XLOC\_1213sp|Q9S7G7|MB3R1\_ARATH Myb-related protein 3R-1 OS=Arabidopsis thaliana GN=MYB3R-1 PE=2 SV=1//1.24467e-87

XLOC\_1213-//  
XLOC\_1213-//  
XLOC\_1213sp|Q5SRX1|TM1L2\_MOUSE TOM1-like protein 2 OS=Mus musculus GN=Tom1l2 PE=1 SV=1//1.96532e-10  
XLOC\_1213sp|Q8LGF7|PEX4\_ARATH Protein PEROXIN-4 OS=Arabidopsis thaliana GN=PEX4 PE=1 SV=1//8.64546e-40  
XLOC\_1213-//  
XLOC\_1213sp|P09523|POL\_FMVD Enzymatic polyprotein OS=Figwort mosaic virus (strain DxS) GN=ORF V PE=3 SV=1//3.03325e-132  
XLOC\_1213sp|Q07469|BSPA\_POPDE Bark storage protein A OS=Populus deltoides GN=BSPA PE=2 SV=1//5.15866e-27  
XLOC\_1214sp|Q9ZU11|ATB15\_ARATH Homeobox-leucine zipper protein ATHB-15 OS=Arabidopsis thaliana GN=ATHB-15 PE=1 SV=1//1.99343e-  
XLOC\_1214sp|Q9ZU11|ATB15\_ARATH Homeobox-leucine zipper protein ATHB-15 OS=Arabidopsis thaliana GN=ATHB-15 PE=1 SV=1//6.44771e-  
XLOC\_1214sp|D7STK2|GATC\_VITVI Glutamyl-tRNA(Gln) amidotransferase subunit C, chloroplastic/mitochondrial OS=Vitis vinifera GN=  
XLOC\_1214sp|023969|SF21\_HELAN Pollen-specific protein SF21 OS=Helianthus annuus GN=SF21 PE=2 SV=1//2.1777e-10  
XLOC\_1214sp|080983|FTSH4\_ARATH ATP-dependent zinc metalloprotease FTSH 4, mitochondrial OS=Arabidopsis thaliana GN=FTSH4 PE=1  
XLOC\_1215sp|Q9SXJ6|CLPP3\_ARATH ATP-dependent Clp protease proteolytic subunit 3, chloroplastic OS=Arabidopsis thaliana GN=CLPP  
XLOC\_1222sp|032472|PHAJ\_AERPU (R)-specific enoyl-CoA hydratase OS=Aeromonas punctata GN=phaJ PE=1 SV=1//7.59853e-22  
XLOC\_1224-//  
XLOC\_1225-//  
XLOC\_1225-//  
XLOC\_1226sp|Q8GU89|PDR4\_ORYSJ Pleiotropic drug resistance protein 4 OS=Oryza sativa subsp. japonica GN=PDR4 PE=2 SV=1//1.03298  
XLOC\_1226sp|P24922|IF5A2\_NICPL Eukaryotic translation initiation factor 5A-2 OS=Nicotiana glauca GN=EIF-5A2 PE=2 SV=1  
XLOC\_1229sp|Q40353|MMK2\_MEDSA Mitogen-activated protein kinase homolog MMK2 OS=Medicago sativa GN=MMK2 PE=2 SV=1//5.27339e-14  
XLOC\_1231sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.07  
XLOC\_1231-//  
XLOC\_1233sp|Q9SRR7|CML3\_ARATH Calmodulin-like protein 3 OS=Arabidopsis thaliana GN=CML3 PE=2 SV=1//3.50755e-20  
XLOC\_1237-//  
XLOC\_1237-//  
XLOC\_1238-//  
XLOC\_1239sp|Q811Q9|PCY1B\_MOUSE Choline-phosphate cytidyltransferase B OS=Mus musculus GN=Pcytlb PE=1 SV=2//3.70586e-67  
XLOC\_1239-//  
XLOC\_1240-//  
XLOC\_1242sp|Q9LRR4|R13L1\_ARATH Putative disease resistance RPP13-like protein 1 OS=Arabidopsis thaliana GN=RPPL1 PE=2 SV=1//2.  
XLOC\_1247sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.52  
XLOC\_1249-//  
XLOC\_1253sp|Q9SRT3|CSLC6\_ARATH Probable xyloglucan glycosyltransferase 6 OS=Arabidopsis thaliana GN=CSLC6 PE=1 SV=1//2.58924e-  
XLOC\_1254sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//9.04738e-28  
XLOC\_1254sp|P55034|PSMD4\_ARATH 26S proteasome non-ATPase regulatory subunit 4 OS=Arabidopsis thaliana GN=MBP1 PE=1 SV=1//4.931



XLOC\_1261sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=Arabidopsis thaliana GN=AtMg00310 PE=4 SV=1//  
XLOC\_1263sp|Q9H0Z9|RBM38\_HUMAN RNA-binding protein 38 OS=Homo sapiens GN=RBM38 PE=1 SV=2//1.71871e-30  
XLOC\_1264sp|Q8LAC4|URH2\_ARATH Probable uridine nucleosidase 2 OS=Arabidopsis thaliana GN=URH2 PE=2 SV=1//9.14411e-11  
XLOC\_1269sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//2.983  
XLOC\_1270sp|Q9ZPI6|AIM1\_ARATH Peroxisomal fatty acid beta-oxidation multifunctional protein AIM1 OS=Arabidopsis thaliana GN=AI  
XLOC\_1272sp|Q54DD7|UNC50\_DICDI Protein unc-50 homolog OS=Dictyostelium discoideum GN=DDB\_G0292320 PE=3 SV=1//6.63244e-07  
XLOC\_1277-//  
XLOC\_1277-//  
XLOC\_1277sp|Q5WWK6|Y1447\_LEGPL Uncharacterized protein lpl1447 OS=Legionella pneumophila (strain Lens) GN=lpl1447 PE=3 SV=1//6  
XLOC\_1277sp|BOJQV0|PHS\_MICAN Putative pterin-4-alpha-carbinolamine dehydratase OS=Microcystis aeruginosa (strain NIES-843) GN=  
XLOC\_1278-//  
XLOC\_1278-//  
XLOC\_1278sp|Q40479|ERF2\_TOBAC Ethylene-responsive transcription factor 2 OS=Nicotiana tabacum GN=ERF2 PE=2 SV=1//8.0506e-56  
XLOC\_1278sp|P27061|PPA1\_SOLLC Acid phosphatase 1 OS=Solanum lycopersicum GN=APS1 PE=2 SV=1//5.99201e-111  
XLOC\_1278sp|Q07423|HEX6\_RICCO Hexose carrier protein HEX6 OS=Ricinus communis GN=HEX6 PE=2 SV=1//9.65919e-174  
XLOC\_1278sp|Q9C5Y4|SMC21\_ARATH Structural maintenance of chromosomes protein 2-1 OS=Arabidopsis thaliana GN=SMC2-1 PE=2 SV=2//  
XLOC\_1279-//  
XLOC\_1279sp|Q9FHM4|MA653\_ARATH 65-kDa microtubule-associated protein 3 OS=Arabidopsis thaliana GN=MAP65-3 PE=1 SV=1//1.3995e-3  
XLOC\_1279sp|Q9LI74|CHUP1\_ARATH Protein CHUP1, chloroplastic OS=Arabidopsis thaliana GN=CHUP1 PE=1 SV=1//1.01818e-11  
XLOC\_1279sp|O04716|MSH6\_ARATH DNA mismatch repair protein MSH6 OS=Arabidopsis thaliana GN=MSH6 PE=1 SV=2//1.89085e-06  
XLOC\_1279sp|Q9SKK0|EBF1\_ARATH EIN3-binding F-box protein 1 OS=Arabidopsis thaliana GN=EBF1 PE=1 SV=1//0  
XLOC\_1279sp|Q9SZY4|PTR27\_ARATH Nitrate transporter 1.4 OS=Arabidopsis thaliana GN=NRT1.4 PE=1 SV=1//0  
XLOC\_1280sp|Q9C5V5|GLR28\_ARATH Glutamate receptor 2.8 OS=Arabidopsis thaliana GN=GLR2.8 PE=2 SV=2//0  
XLOC\_1280sp|O81772|PER46\_ARATH Peroxidase 46 OS=Arabidopsis thaliana GN=PER46 PE=2 SV=1//5.24362e-149  
XLOC\_1280sp|O81770|MGDG1\_ARATH Monogalactosyldiacylglycerol synthase 1, chloroplastic OS=Arabidopsis thaliana GN=MGD1 PE=1 SV=  
XLOC\_1280sp|Q9SK27|ENL1\_ARATH Early nodulin-like protein 1 OS=Arabidopsis thaliana GN=At2g25060 PE=1 SV=2//7.78771e-54  
XLOC\_1280sp|Q9LK40|RPD2A\_ARATH DNA-directed RNA polymerase D subunit 2a OS=Arabidopsis thaliana GN=NRPD2a PE=1 SV=1//0  
XLOC\_1280sp|Q9C5T4|WRK18\_ARATH WRKY transcription factor 18 OS=Arabidopsis thaliana GN=WRKY18 PE=1 SV=2//5.73601e-35  
XLOC\_1280sp|Q9C5T4|WRK18\_ARATH WRKY transcription factor 18 OS=Arabidopsis thaliana GN=WRKY18 PE=1 SV=2//2.53661e-75  
XLOC\_1280sp|Q04264|PDS5\_YEAST Sister chromatid cohesion protein PDS5 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c)  
XLOC\_1281sp|Q8VY97|Y4213\_ARATH ER membrane protein complex subunit 7 homolog OS=Arabidopsis thaliana GN=At4g32130 PE=1 SV=1//1  
XLOC\_1281sp|P86387|PLDA1\_CARPA Phospholipase D alpha 1 OS=Carica papaya GN=PLD1 PE=1 SV=1//6.33975e-163  
XLOC\_1281sp|P81406|GAPN\_PEA NADP-dependent glyceraldehyde-3-phosphate dehydrogenase OS=Pisum sativum GN=GAPN PE=1 SV=1//0  
XLOC\_1282sp|P37833|AATC\_ORYSJ Aspartate aminotransferase, cytoplasmic OS>Oryza sativa subsp. japonica GN=Os01g0760600 PE=2 SV=  
XLOC\_1282sp|Q5RCZ7|RCBT2\_PONAB RCC1 and BTB domain-containing protein 2 OS=Pongo abelii GN=RCBT2 PE=2 SV=1//1.49542e-06

XLOC\_1282sp|Q54J73|PAP\_DICDI Poly(A) polymerase OS=Dictyostelium discoideum GN=papA PE=3 SV=1//9.32881e-47  
XLOC\_1282sp|Q02921|N093\_SOYBN Early nodulin-93 OS=Glycine max PE=2 SV=1//1.87478e-10  
XLOC\_1282sp|Q9M077|AUR1\_ARATH Serine/threonine-protein kinase Aurora-1 OS=Arabidopsis thaliana GN=AUR1 PE=1 SV=1//2.524e-58  
XLOC\_1282sp|Q941R6|MLP31\_ARATH MLP-like protein 31 OS=Arabidopsis thaliana GN=MLP31 PE=1 SV=2//5.08778e-27  
XLOC\_1282sp|082804|ELF3\_ARATH Protein EARLY FLOWERING 3 OS=Arabidopsis thaliana GN=ELF3 PE=1 SV=1//1.78897e-43  
XLOC\_1283-//  
XLOC\_1283sp|P49043|VPE\_CITSI Vacuolar-processing enzyme OS=Citrus sinensis PE=2 SV=1//0  
XLOC\_1283sp|Q9FPR3|EDR1\_ARATH Serine/threonine-protein kinase EDR1 OS=Arabidopsis thaliana GN=EDR1 PE=1 SV=1//4.4982e-46  
XLOC\_1283sp|P55786|PSA\_HUMAN Puromycin-sensitive aminopeptidase OS=Homo sapiens GN=NPEPPS PE=1 SV=2//2.8377e-41  
XLOC\_1283sp|Q8VWQ5|WRK50\_ARATH Probable WRKY transcription factor 50 OS=Arabidopsis thaliana GN=WRKY50 PE=2 SV=1//5.44294e-36  
XLOC\_1283-//  
XLOC\_1283-//  
XLOC\_1284-//  
XLOC\_1284sp|P93147|C81E1\_GLYEC Isoflavone 2'-hydroxylase OS=Glycyrrhiza echinata GN=CYP81E1 PE=1 SV=2//1.48556e-39  
XLOC\_1286sp|Q84JU4|IBR5\_ARATH Protein-tyrosine-phosphatase IBR5 OS=Arabidopsis thaliana GN=IBR5 PE=1 SV=1//7.81282e-57  
XLOC\_1287-//  
XLOC\_1287-//  
XLOC\_1287sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.19813e-82  
XLOC\_1292sp|Q8LEM8|RL373\_ARATH 60S ribosomal protein L37-3 OS=Arabidopsis thaliana GN=RPL37C PE=3 SV=1//3.60387e-28  
XLOC\_1292-//  
XLOC\_1292-//  
XLOC\_1293sp|Q9SB51|UBP16\_ARATH Ubiquitin carboxyl-terminal hydrolase 16 OS=Arabidopsis thaliana GN=UBP16 PE=2 SV=1//2.15488e-2  
XLOC\_1294sp|Q9LRR4|R13L1\_ARATH Putative disease resistance RPP13-like protein 1 OS=Arabidopsis thaliana GN=RPPL1 PE=2 SV=1//4.  
XLOC\_1294-//  
XLOC\_1295sp|P52855|RLA1\_MAIZE 60S acidic ribosomal protein P1 OS=Zea mays GN=RPP1A PE=1 SV=1//1.33273e-20  
XLOC\_1295sp|Q39639|PLSB\_CUCSA Glycerol-3-phosphate acyltransferase, chloroplastic OS=Cucumis sativus PE=2 SV=1//6.08749e-22  
XLOC\_1298sp|Q9M2E2|SDR1\_ARATH (+)-neomenthol dehydrogenase OS=Arabidopsis thaliana GN=SDR1 PE=1 SV=1//2.34409e-97  
XLOC\_1300-//  
XLOC\_1301sp|Q8H2T0|P2C65\_ORYSJ Probable protein phosphatase 2C 65 OS=Oryza sativa subsp. japonica GN=Os07g0646100 PE=2 SV=1//2  
XLOC\_1301-//  
XLOC\_1302sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//2.23987e-30  
XLOC\_1302sp|Q09020|PR4\_PHAVU Wound-induced basic protein OS=Phaseolus vulgaris GN=PR4 PE=2 SV=1//1.36373e-23  
XLOC\_1307-//  
XLOC\_1307sp|Q96361|ARF1\_BRARP ADP-ribosylation factor 1 OS=Brassica rapa subsp. pekinensis GN=ARF1 PE=2 SV=3//1.03474e-21  
XLOC\_1308sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//5.186

XLOC\_1308sp|COLGQ5|GS01\_ARATH LRR receptor-like serine/threonine-protein kinase GS01 OS=Arabidopsis thaliana GN=GS01 PE=2 SV=1  
XLOC\_1310sp|Q96MD7|CI085\_HUMAN Uncharacterized protein C9orf85 OS=Homo sapiens GN=C9orf85 PE=1 SV=1//1.23472e-18  
XLOC\_1311sp|Q9SI37|WRKY1\_ARATH WRKY transcription factor 1 OS=Arabidopsis thaliana GN=WRKY1 PE=1 SV=1//3.49884e-85  
XLOC\_1312sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.83  
XLOC\_1317sp|Q9FPT1|UBP12\_ARATH Ubiquitin carboxyl-terminal hydrolase 12 OS=Arabidopsis thaliana GN=UBP12 PE=1 SV=2//3.43026e-1  
XLOC\_1319-//  
XLOC\_1321sp|Q9LN63|BZR2\_ARATH Protein BRASSINAZOLE-RESISTANT 2 OS=Arabidopsis thaliana GN=BZR2 PE=1 SV=1//3.76574e-24  
XLOC\_1323-//  
XLOC\_1324sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.53  
XLOC\_1324-//  
XLOC\_1328sp|P03010|TRAC9\_MAIZE Putative AC9 transposase OS=Zea mays PE=4 SV=1//2.51705e-29  
XLOC\_1329sp|O49668|PAM68\_ARATH Protein PAM68, chloroplastic OS=Arabidopsis thaliana GN=PAM68 PE=1 SV=1//7.61798e-46  
XLOC\_1329sp|P44731|POTD2\_HAEIN Spermidine/putrescine-binding periplasmic protein 2 OS=Haemophilus influenzae (strain ATCC 5190  
XLOC\_1330sp|Q9FNA2|PA01\_ARATH Polyamine oxidase 1 OS=Arabidopsis thaliana GN=PA01 PE=1 SV=1//2.40617e-102  
XLOC\_1331sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.27  
XLOC\_1331sp|P04323|POL3\_DROME Retrovirus-related Pol polyprotein from transposon 17.6 OS=Drosophila melanogaster GN=pol PE=4 S  
XLOC\_1331sp|Q5A3M6|MCD4\_CANAL GPI ethanolamine phosphate transferase 1 OS=Candida albicans (strain SC5314 / ATCC MYA-2876) GN=  
XLOC\_1331sp|004369|RAC1\_LOTJA Rac-like GTP-binding protein RAC1 OS=Lotus japonicus GN=RAC1 PE=2 SV=1//1.08104e-30  
XLOC\_1332-//  
XLOC\_1335-//  
XLOC\_1337-//  
XLOC\_1337sp|Q945L0|CX6B2\_ARATH Cytochrome c oxidase subunit 6b-2 OS=Arabidopsis thaliana GN=COX6B-2 PE=2 SV=1//1.20268e-22  
XLOC\_1339sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//8.06  
XLOC\_1340sp|Q6NQK2|NAC8\_ARATH NAC domain-containing protein 8 OS=Arabidopsis thaliana GN=NAC008 PE=2 SV=1//5.26528e-66  
XLOC\_1340-//  
XLOC\_1340sp|Q9CXS4|CENPV\_MOUSE Centromere protein V OS=Mus musculus GN=Cenpv PE=2 SV=2//7.12256e-13  
XLOC\_1341sp|Q54LT8|STRAP\_DICDI Serine-threonine kinase receptor-associated protein OS=Dictyostelium discoideum GN=strap PE=3 S  
XLOC\_1342sp|P20825|POL2\_DROME Retrovirus-related Pol polyprotein from transposon 297 OS=Drosophila melanogaster GN=pol PE=4 SV  
XLOC\_1342sp|002414|DYL1\_HELICR Dynein light chain LC6, flagellar outer arm OS=Helicoidaris crassispina PE=3 SV=1//1.09631e-23  
XLOC\_1343sp|Q8GW61|STP14\_ARATH Sugar transport protein 14 OS=Arabidopsis thaliana GN=STP14 PE=2 SV=2//4.28381e-66  
XLOC\_1343-//  
XLOC\_1344sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.38957e-75  
XLOC\_1347sp|Q5A3M6|MCD4\_CANAL GPI ethanolamine phosphate transferase 1 OS=Candida albicans (strain SC5314 / ATCC MYA-2876) GN=  
XLOC\_1348sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.64649e-72  
XLOC\_1350sp|Q8W593|LGUC\_ARATH Probable lactoylglutathione lyase, chloroplast OS=Arabidopsis thaliana GN=Atlg67280 PE=2 SV=1//2

XLOC\_1350-/-  
XLOC\_1351sp|COLGK9|Y2242\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At2g24230 OS=Arabidopsis thaliana GN  
XLOC\_1352sp|Q5RDY2|TM9S4\_PONAB Transmembrane 9 superfamily member 4 OS=Pongo abelii GN=TM9SF4 PE=2 SV=1//4.4171e-85  
XLOC\_1352sp|082232|RC22\_ARATH UPF0057 membrane protein At2g24040 OS=Arabidopsis thaliana GN=At2g24040 PE=2 SV=1//7.41999e-23  
XLOC\_1352sp|Q9FG13|CXE15\_ARATH Probable carboxylesterase 15 OS=Arabidopsis thaliana GN=CXE15 PE=2 SV=1//1.19167e-10  
XLOC\_1354-/-  
XLOC\_1354sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//7.22828e-15  
XLOC\_1356sp|F4HVJ3|POD1\_ARATH Protein POLLEN DEFECTIVE IN GUIDANCE 1 OS=Arabidopsis thaliana GN=POD1 PE=1 SV=1//2.35927e-39  
XLOC\_1357sp|Q42438|CDPK8\_ARATH Calcium-dependent protein kinase 8 OS=Arabidopsis thaliana GN=CPK8 PE=1 SV=1//4.42455e-41  
XLOC\_1362sp|POCG83|UBIQP\_HORVU Polyubiquitin (Fragment) OS=Hordeum vulgare PE=2 SV=1//1.54246e-45  
XLOC\_1371sp|Q9FFT9|RH32\_ARATH DEAD-box ATP-dependent RNA helicase 32 OS=Arabidopsis thaliana GN=RH32 PE=2 SV=1//4.12967e-07  
XLOC\_1373sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.16443e-41  
XLOC\_1374-/-  
XLOC\_1375sp|Q9FLF7|MYST1\_ARATH Probable MYST-like histone acetyltransferase 1 OS=Arabidopsis thaliana GN=HAG4 PE=2 SV=1//2.304  
XLOC\_1376-/-  
XLOC\_1378-/-  
XLOC\_1379sp|Q9LT17|BBR\_ARATH E3 ubiquitin ligase BIG BROTHER-related OS=Arabidopsis thaliana GN=BBR PE=2 SV=1//4.63406e-77  
XLOC\_1381sp|082531|PSB1\_PETHY Proteasome subunit beta type-1 OS=Petunia hybrida GN=PBF1 PE=2 SV=1//2.76388e-06  
XLOC\_1382-/-  
XLOC\_1383-/-  
XLOC\_1384sp|Q8H156|RAN3\_ARATH GTP-binding nuclear protein Ran-3 OS=Arabidopsis thaliana GN=RAN3 PE=1 SV=2//6.44554e-148  
XLOC\_1386sp|P58854|GCP3\_MOUSE Gamma-tubulin complex component 3 OS=Mus musculus GN=Tubgcp3 PE=2 SV=2//5.02791e-09  
XLOC\_1386sp|Q54YQ9|MVD1\_DICDI Diphosphomevalonate decarboxylase OS=Dictyostelium discoideum GN=mvd PE=3 SV=1//4.1998e-16  
XLOC\_1387-/-  
XLOC\_1387sp|P08927|RUBB\_PEA RuBisCO large subunit-binding protein subunit beta, chloroplastic OS=Pisum sativum PE=1 SV=2//2.28  
XLOC\_1387sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.36544e-76  
XLOC\_1390sp|Q09912|PSI1\_SCHPO Protein psi1 OS=Schizosaccharomyces pombe (strain 972 / ATCC 24843) GN=psi1 PE=2 SV=2//7.07087e-  
XLOC\_1390-/-  
XLOC\_1390-/-  
XLOC\_1390-/-  
XLOC\_1391sp|Q95ZI6|PITH1\_CAEEL PITH domain-containing protein ZK353.9 OS=Caenorhabditis elegans GN=ZK353.9 PE=2 SV=1//2.28666e  
XLOC\_1391sp|COLGX3|HSL2\_ARATH LRR receptor-like serine/threonine-protein kinase HSL2 OS=Arabidopsis thaliana GN=HSL2 PE=2 SV=1  
XLOC\_1391sp|Q9LU15|AHP4\_ARATH Histidine-containing phosphotransfer protein 4 OS=Arabidopsis thaliana GN=AHP4 PE=1 SV=2//4.7480  
XLOC\_1391sp|Q8YXE4|SYW\_NOSS1 Tryptophan--tRNA ligase OS=Nostoc sp. (strain PCC 7120 / UTEX 2576) GN=trpS PE=3 SV=1//4.07404e-2  
XLOC\_1391sp|P51615|MAOX\_VITVI NADP-dependent malic enzyme OS=Vitis vinifera PE=2 SV=1//1.95313e-40

XLOC\_1392sp|Q9ZU11|ATB15\_ARATH Homeobox-leucine zipper protein ATHB-15 OS=Arabidopsis thaliana GN=ATHB-15 PE=1 SV=1//5.69755e-  
XLOC\_1392sp|Q8L493|BCAL3\_ARATH Branched-chain-amino-acid aminotransferase-like protein 3, chloroplastic OS=Arabidopsis thalian  
XLOC\_1392sp|Q940P5|TET19\_ARATH Tetraspanin-19 OS=Arabidopsis thaliana GN=At2g20740 PE=2 SV=1//3.19819e-07  
XLOC\_1393sp|Q0UYV9|YD156\_PHANO WD repeat-containing protein SNOG\_03055 OS=Phaeosphaeria nodorum (strain SN15 / ATCC MYA-4574 /  
XLOC\_1393-//  
XLOC\_1393sp|Q56X72|RTNLS\_ARATH Reticulon-like protein B21 OS=Arabidopsis thaliana GN=RTNLB21 PE=2 SV=2//2.75181e-105  
XLOC\_1393sp|Q7VG78|GUAA\_HELHP Probable GMP synthase [glutamine-hydrolyzing] OS=Helicobacter hepaticus (strain ATCC 51449 / 3B1  
XLOC\_1393sp|Q9DBG7|SRPR\_MOUSE Signal recognition particle receptor subunit alpha OS=Mus musculus GN=Srpr PE=1 SV=1//4.19103e-3  
XLOC\_1394sp|Q84ZT9|WVD2\_ARATH Protein WAVE-DAMPENED 2 OS=Arabidopsis thaliana GN=WVD2 PE=2 SV=1//1.0072e-21  
XLOC\_1394sp|Q8GY91|APX6\_ARATH Putative L-ascorbate peroxidase 6 OS=Arabidopsis thaliana GN=APX6 PE=2 SV=1//1.60498e-36  
XLOC\_1395sp|P43291|SRK2A\_ARATH Serine/threonine-protein kinase SRK2A OS=Arabidopsis thaliana GN=SRK2A PE=1 SV=1//3.80174e-20  
XLOC\_1400-//  
XLOC\_1400-//  
XLOC\_1401sp|Q9LNG5|PPP7L\_ARATH Serine/threonine-protein phosphatase 7 long form homolog OS=Arabidopsis thaliana GN=At1g48120 P  
XLOC\_1403sp|Q6UNT2|RL5\_CUCSA 60S ribosomal protein L5 OS=Cucumis sativus GN=RPL5 PE=2 SV=1//1.10394e-14  
XLOC\_1404sp|Q2L952|NU1C\_GOSHI NAD(P)H-quinone oxidoreductase subunit 1, chloroplastic OS=Gossypium hirsutum GN=ndhA PE=3 SV=1/  
XLOC\_1408sp|Q4V3C1|MED8\_ARATH Mediator of RNA polymerase II transcription subunit 8 OS=Arabidopsis thaliana GN=MED8 PE=1 SV=1/  
XLOC\_1410sp|A0T0I9|RK14\_PHATC 50S ribosomal protein L14, chloroplastic OS=Phaeodactylum tricorutum (strain CCAP 1055/1) GN=rp  
XLOC\_1411sp|Q43128|PMA10\_ARATH ATPase 10, plasma membrane-type OS=Arabidopsis thaliana GN=AHA10 PE=2 SV=2//5.06166e-17  
XLOC\_1411sp|Q9ATF5|RL18A\_CASSA 60S ribosomal protein L18a OS=Castanea sativa GN=RPL18A PE=2 SV=1//5.79939e-20  
XLOC\_1412sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//2.21045e-56  
XLOC\_1415sp|Q53FA7|QORX\_HUMAN Quinone oxidoreductase PIG3 OS=Homo sapiens GN=TP53I3 PE=1 SV=2//3.9395e-18  
XLOC\_1416sp|POC8Z0|Y8359\_ORYSI Uncharacterized protein OsI\_027940 OS=Oryza sativa subsp. indica GN=OsI\_027940 PE=1 SV=2//1.163  
XLOC\_1418sp|Q9SSQ4|FRS6\_ARATH Protein FAR1-RELATED SEQUENCE 6 OS=Arabidopsis thaliana GN=FRS6 PE=2 SV=1//0  
XLOC\_1421sp|Q9LK94|MDAR2\_ARATH Probable monodehydroascorbate reductase, cytoplasmic isoform 2 OS=Arabidopsis thaliana GN=At3g2  
XLOC\_1423-//  
XLOC\_1424-//  
XLOC\_1427-//  
XLOC\_1429sp|Q9Y305|ACOT9\_HUMAN Acyl-coenzyme A thioesterase 9, mitochondrial OS=Homo sapiens GN=ACOT9 PE=1 SV=2//6.12366e-32  
XLOC\_1429-//  
XLOC\_1435-//  
XLOC\_1436sp|Q9SR02|MED14\_ARATH Mediator of RNA polymerase II transcription subunit 14 OS=Arabidopsis thaliana GN=MED14 PE=1 SV  
XLOC\_1438-//  
XLOC\_1439sp|Q9SKZ5|FBT1\_ARATH Folate-biopterin transporter 1, chloroplastic OS=Arabidopsis thaliana GN=At2g32040 PE=2 SV=2//9.  
XLOC\_1439sp|Q3E9C3|RH58\_ARATH DEAD-box ATP-dependent RNA helicase 58, chloroplastic OS=Arabidopsis thaliana GN=RH58 PE=2 SV=1/

XLOC\_1439-/-  
XLOC\_1441-/-  
XLOC\_1443sp|Q67XQ0|Y4424\_ARATH DUF21 domain-containing protein At4g14240 OS=Arabidopsis thaliana GN=CBSDUF1 PE=2 SV=1//3.07096  
XLOC\_1444-/-  
XLOC\_1444sp|P34091|RL6\_MESCR 60S ribosomal protein L6 OS=Mesembryanthemum crystallinum GN=RPL6 PE=2 SV=1//1.67152e-12  
XLOC\_1444sp|Q42910|PPDK\_MESCR Pyruvate, phosphate dikinase, chloroplastic OS=Mesembryanthemum crystallinum GN=PPD PE=2 SV=1//2  
XLOC\_1445sp|Q94BZ5|HSFA5\_ARATH Heat stress transcription factor A-5 OS=Arabidopsis thaliana GN=HSFA5 PE=2 SV=1//1.09597e-13  
XLOC\_1446sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.35  
XLOC\_1447sp|Q9M612|NACA\_PINTA Nascent polypeptide-associated complex subunit alpha-like protein OS=Pinus taeda PE=2 SV=1//1.08  
XLOC\_1448sp|Q9SUJ1|SYP43\_ARATH Syntaxin-43 OS=Arabidopsis thaliana GN=SYP43 PE=2 SV=2//3.07905e-21  
XLOC\_1451sp|Q80Z37|TOPRS\_MOUSE E3 ubiquitin-protein ligase Topors OS=Mus musculus GN=Topors PE=1 SV=1//1.44114e-13  
XLOC\_1453sp|Q9FPR3|EDR1\_ARATH Serine/threonine-protein kinase EDR1 OS=Arabidopsis thaliana GN=EDR1 PE=1 SV=1//8.89966e-19  
XLOC\_1453sp|Q07123|AM02\_ARTS1 Copper methylamine oxidase OS=Arthrobacter sp. (strain P1) GN=maoII PE=1 SV=1//2.27899e-24  
XLOC\_1454sp|P92519|M810\_ARATH Uncharacterized mitochondrial protein AtMg00810 OS=Arabidopsis thaliana GN=AtMg00810 PE=4 SV=1//  
XLOC\_1454sp|Q9SBJ1|PDK\_ARATH [Pyruvate dehydrogenase (acetyl-transferring)] kinase, mitochondrial OS=Arabidopsis thaliana GN=P  
XLOC\_1456-/-  
XLOC\_1458sp|Q9LJH5|GL04\_ARATH Peroxisomal (S)-2-hydroxy-acid oxidase GL04 OS=Arabidopsis thaliana GN=GL04 PE=2 SV=1//5.87684e-  
XLOC\_1458sp|Q24JJ8|GL03\_ARATH Peroxisomal (S)-2-hydroxy-acid oxidase GL03 OS=Arabidopsis thaliana GN=GL03 PE=2 SV=1//6.24168e-  
XLOC\_1459sp|P62981|RS27A\_SOLTU Ubiquitin-40S ribosomal protein S27a OS=Solanum tuberosum GN=UBI3 PE=2 SV=2//7.15626e-84  
XLOC\_1461sp|Q42551|SCE1\_ARATH SUMO-conjugating enzyme SCE1 OS=Arabidopsis thaliana GN=SCE1 PE=1 SV=1//8.06287e-12  
XLOC\_1463-/-  
XLOC\_1463sp|Q8LDR0|DOF54\_ARATH Dof zinc finger protein DOF5.4 OS=Arabidopsis thaliana GN=DOF5.4 PE=2 SV=2//1.47631e-28  
XLOC\_1467-/-  
XLOC\_1468-/-  
XLOC\_1469-/-  
XLOC\_1469sp|Q9LUV2|POP3\_ARATH Probable protein Pop3 OS=Arabidopsis thaliana GN=At3g17210 PE=1 SV=1//2.39299e-47  
XLOC\_1469-/-  
XLOC\_1470-/-  
XLOC\_1472sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.49  
XLOC\_1474-/-  
XLOC\_1474sp|O82528|RL15\_PETHY 60S ribosomal protein L15 OS=Petunia hybrida GN=RPL15 PE=2 SV=1//5.36282e-73  
XLOC\_1475sp|Q7XA39|RGA4\_SOLBU Putative disease resistance protein RGA4 OS=Solanum bulbocastanum GN=RGA4 PE=2 SV=1//2.87317e-10  
XLOC\_1480-/-  
XLOC\_1481sp|P04323|POL3\_DROME Retrovirus-related Pol polyprotein from transposon 17.6 OS=Drosophila melanogaster GN=pol PE=4 S  
XLOC\_1481-/-

XLOC\_1483sp|Q9SCY5|KINB2\_ARATH SNF1-related protein kinase regulatory subunit beta-2 OS=Arabidopsis thaliana GN=KINB2 PE=1 SV=  
XLOC\_1485sp|Q9SQH6|PIN6\_ARATH Probable auxin efflux carrier component 6 OS=Arabidopsis thaliana GN=PIN6 PE=2 SV=2//6.11381e-42  
XLOC\_1485sp|Q56YJ8|FAMA\_ARATH Transcription factor FAMA OS=Arabidopsis thaliana GN=FMA PE=1 SV=1//1.09377e-133  
XLOC\_1486sp|Q6ZGL9|SIP1\_ORYSJ Signal peptide peptidase 1 OS=Oryza sativa subsp. japonica GN=SPP1 PE=2 SV=1//2.88419e-17  
XLOC\_1489-//  
XLOC\_1490sp|Q6UNT2|RL5\_CUCSA 60S ribosomal protein L5 OS=Cucumis sativus GN=RPL5 PE=2 SV=1//4.17562e-24  
XLOC\_1491sp|Q8GXX5|EDL14\_ARATH Sugar transporter ERD6-like 14 OS=Arabidopsis thaliana GN=At4g04750 PE=2 SV=2//5.65134e-09  
XLOC\_1491sp|Q96MB7|HARB1\_HUMAN Putative nuclease HARB1 OS=Homo sapiens GN=HARB1 PE=1 SV=1//6.98608e-18  
XLOC\_1491-//  
XLOC\_1492-//  
XLOC\_1493-//  
XLOC\_1493sp|O80366|ARR9\_ARATH Two-component response regulator ARR9 OS=Arabidopsis thaliana GN=ARR9 PE=1 SV=1//1.27442e-60  
XLOC\_1494sp|P46286|RL81\_ARATH 60S ribosomal protein L8-1 OS=Arabidopsis thaliana GN=RPL8A PE=1 SV=2//1.41406e-54  
XLOC\_1495-//  
XLOC\_1495sp|Q9LHP4|RCH2\_ARATH Receptor-like protein kinase 2 OS=Arabidopsis thaliana GN=RCH2 PE=1 SV=1//7.87871e-06  
XLOC\_1496-//  
XLOC\_1498-//  
XLOC\_1499sp|Q39688|EP1G\_DAUCA Epidermis-specific secreted glycoprotein EP1 OS=Daucus carota GN=EP1 PE=1 SV=1//3.07704e-61  
XLOC\_1502-//  
XLOC\_1502sp|Q9S746|HTH\_ARATH Protein HOTHEAD OS=Arabidopsis thaliana GN=HTH PE=1 SV=1//3.37268e-45  
XLOC\_1511-//  
XLOC\_1511-//  
XLOC\_1512-//  
XLOC\_1512-//  
XLOC\_1513sp|Q93Z66|KPRS3\_ARATH Ribose-phosphate pyrophosphokinase 3, chloroplastic OS=Arabidopsis thaliana GN=PRS3 PE=2 SV=1//  
XLOC\_1515sp|Q9LMX8|6PGL1\_ARATH Probable 6-phosphogluconolactonase 1 OS=Arabidopsis thaliana GN=At1g13700 PE=2 SV=1//2.59461e-4  
XLOC\_1517sp|O80944|AKRC8\_ARATH Aldo-keto reductase family 4 member C8 OS=Arabidopsis thaliana GN=AKR4C8 PE=1 SV=2//2.95166e-97  
XLOC\_1517sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.32241e-81  
XLOC\_1518sp|P68855|PSBN\_WHEAT Protein PsbN OS=Triticum aestivum GN=psbN PE=3 SV=1//5.38161e-21  
XLOC\_1518sp|Q9SZL7|FRS9\_ARATH Protein FARI-RELATED SEQUENCE 9 OS=Arabidopsis thaliana GN=FRS9 PE=2 SV=2//0  
XLOC\_1518sp|Q0WNR6|ARID5\_ARATH AT-rich interactive domain-containing protein 5 OS=Arabidopsis thaliana GN=ARID5 PE=2 SV=1//1.2  
XLOC\_1521sp|P29685|ATPBM\_HEVBR ATP synthase subunit beta, mitochondrial OS=Hevea brasiliensis GN=ATPB PE=2 SV=1//2.36324e-31  
XLOC\_1521-//  
XLOC\_1523sp|Q9ATF5|RL18A\_CASSA 60S ribosomal protein L18a OS=Castanea sativa GN=RPL18A PE=2 SV=1//1.41211e-27  
XLOC\_1523sp|Q680C0|GDL62\_ARATH GDSL esterase/lipase At4g10955 OS=Arabidopsis thaliana GN=At4g10955 PE=2 SV=1//4.79805e-17

XLOC\_1523-/-

XLOC\_1524sp|Q8L8A5|GIF1\_ARATH GRF1-interacting factor 1 OS=Arabidopsis thaliana GN=GIF1 PE=1 SV=1//4.11633e-30  
XLOC\_1524sp|Q9M8Y5|LTL1\_ARATH GDSL esterase/lipase LTL1 OS=Arabidopsis thaliana GN=LTL1 PE=2 SV=1//0  
XLOC\_1524sp|Q8LB81|GDL79\_ARATH GDSL esterase/lipase At5g33370 OS=Arabidopsis thaliana GN=At5g33370 PE=2 SV=1//2.56232e-149  
XLOC\_1524sp|Q5N749|MOR1\_ORYSJ Protein MOR1 OS=Oryza sativa subsp. japonica GN=MOR1 PE=2 SV=1//2.8637e-18  
XLOC\_1530sp|Q3B724|CAL5\_ARATH Callose synthase 5 OS=Arabidopsis thaliana GN=CALS5 PE=1 SV=1//1.21313e-19  
XLOC\_1531sp|P17784|ALF\_ORYSJ Fructose-bisphosphate aldolase cytoplasmic isozyme OS=Oryza sativa subsp. japonica GN=FBA PE=1 SV=1  
XLOC\_1533-/-

XLOC\_1535sp|O26373|Y273\_METTH UPF0098 protein MTH\_273 OS=Methanothermobacter thermautotrophicus (strain ATCC 29096 / DSM 1053  
XLOC\_1535sp|Q9LM55|FBK8\_ARATH F-box/kelch-repeat protein At1g22040 OS=Arabidopsis thaliana GN=At1g22040 PE=2 SV=1//0  
XLOC\_1536sp|Q6S591|JAG\_ARATH Zinc finger protein JAGGED OS=Arabidopsis thaliana GN=JAG PE=2 SV=1//2.3384e-12  
XLOC\_1536sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.36  
XLOC\_1537sp|Q8L8B8|LOG3\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG3 OS=Arabidopsis thaliana GN=LC  
XLOC\_1537sp|POCH32|UBQ4\_ARATH Polyubiquitin 4 OS=Arabidopsis thaliana GN=UBQ4 PE=1 SV=1//0  
XLOC\_1539sp|Q8MR62|VIAF1\_DROME Viral IAP-associated factor homolog OS=Drosophila melanogaster GN=viaf PE=1 SV=1//4.62682e-27  
XLOC\_1540sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//2.29002e-07  
XLOC\_1544sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//7.52  
XLOC\_1544sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.82

XLOC\_1544-/-

XLOC\_1545-/-

XLOC\_1546sp|Q2PS26|ULP1D\_ARATH Ubiquitin-like-specific protease 1D OS=Arabidopsis thaliana GN=ULP1D PE=1 SV=1//1.41021e-36  
XLOC\_1546sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.27  
XLOC\_1546sp|P42856|ZB14\_MAIZE 14 kDa zinc-binding protein OS=Zea mays GN=ZBP14 PE=1 SV=1//6.7458e-10  
XLOC\_1547sp|Q6NLY8|HA22K\_ARATH HVA22-like protein k OS=Arabidopsis thaliana GN=HVA22K PE=2 SV=1//1.13079e-65  
XLOC\_1548sp|Q9LXA5|LRK91\_ARATH L-type lectin-domain containing receptor kinase IX.1 OS=Arabidopsis thaliana GN=LECRK91 PE=2 SV=1  
XLOC\_1548sp|Q54UU1|TPPC4\_DICDI Trafficking protein particle complex subunit 4 OS=Dictyostelium discoideum GN=trappc4 PE=3 SV=1  
XLOC\_1550sp|Q8H5X5|SCAM1\_ORYSJ Secretory carrier-associated membrane protein 1 OS=Oryza sativa subsp. japonica GN=SCAMP1 PE=2 SV=1  
XLOC\_1552sp|Q8S857|H2AV2\_ORYSJ Probable histone H2A variant 2 OS=Oryza sativa subsp. japonica GN=Os10g0418000 PE=2 SV=1//9.494  
XLOC\_1552sp|O82798|ARR4\_ARATH Two-component response regulator ARR4 OS=Arabidopsis thaliana GN=ARR4 PE=1 SV=1//2.14425e-67  
XLOC\_1553sp|Q9M391|ATX3H\_ARATH Ataxin-3 homolog OS=Arabidopsis thaliana GN=At3g54130 PE=2 SV=1//7.98781e-17  
XLOC\_1553sp|Q9M2Z4|MSBP2\_ARATH Membrane steroid-binding protein 2 OS=Arabidopsis thaliana GN=MSBP2 PE=1 SV=1//8.09486e-54  
XLOC\_1554sp|Q9LNG5|PPP7L\_ARATH Serine/threonine-protein phosphatase 7 long form homolog OS=Arabidopsis thaliana GN=At1g48120 P  
XLOC\_1557sp|Q8S8M5|ABIL1\_ARATH Protein ABIL1 OS=Arabidopsis thaliana GN=ABIL1 PE=1 SV=1//2.9622e-39  
XLOC\_1558sp|Q39433|RB1BV\_BETVU Ras-related protein RAB1BV OS=Beta vulgaris GN=RAB1BV PE=2 SV=1//5.01956e-19  
XLOC\_1558sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.09541e-42



XLOC\_1560-/-  
XLOC\_1560sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//8.83103e-85  
XLOC\_1560-/-  
XLOC\_1561sp|Q6NWX5|POT1B\_ARATH Protection of telomeres protein 1b OS=Arabidopsis thaliana GN=POT1B PE=1 SV=1//3.31089e-11  
XLOC\_1564sp|Q9ZVC9|FRS3\_ARATH Protein FAR1-RELATED SEQUENCE 3 OS=Arabidopsis thaliana GN=FRS3 PE=2 SV=2//6.21094e-13  
XLOC\_1567sp|Q9C5R8|BAS1B\_ARATH 2-Cys peroxiredoxin BAS1-like, chloroplastic OS=Arabidopsis thaliana GN=At5g06290 PE=2 SV=3//1.  
XLOC\_1567-/-  
XLOC\_1567sp|Q9UI26|IP011\_HUMAN Importin-11 OS=Homo sapiens GN=IP011 PE=1 SV=1//1.28859e-25  
XLOC\_1567-/-  
XLOC\_1567sp|Q9M6N7|AMT2\_ARATH Ammonium transporter 2 OS=Arabidopsis thaliana GN=AMT2 PE=1 SV=2//0  
XLOC\_1569sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//3.96992e-21  
XLOC\_1569sp|A2QVV2|CREC\_ASPNC Probable catabolite repression protein creC OS=Aspergillus niger (strain CBS 513.88 / FGSC A1513  
XLOC\_1572sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.48  
XLOC\_1575-/-  
XLOC\_1575sp|P33079|A10A5\_SOYBN Auxin-induced protein 10A5 OS=Glycine max PE=2 SV=1//1.07298e-22  
XLOC\_1577sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//3.380  
XLOC\_1577sp|Q5VTL8|PR38B\_HUMAN Pre-mRNA-splicing factor 38B OS=Homo sapiens GN=PRPF38B PE=1 SV=1//1.27971e-12  
XLOC\_1579sp|Q9SWI1|PKS1\_ARATH Protein PHYTOCHROME KINASE SUBSTRATE 1 OS=Arabidopsis thaliana GN=PKS1 PE=1 SV=2//4.32349e-39  
XLOC\_1582sp|Q6NUB2|CW15A\_XENLA Protein CWC15 homolog A OS=Xenopus laevis GN=cwc15-a PE=2 SV=1//1.16179e-08  
XLOC\_1584sp|Q8LB81|GDL79\_ARATH GDSL esterase/lipase At5g33370 OS=Arabidopsis thaliana GN=At5g33370 PE=2 SV=1//0  
XLOC\_1584sp|Q5S2C3|PIR\_ARATH Protein PIR OS=Arabidopsis thaliana GN=PIR PE=1 SV=2//7.1092e-20  
XLOC\_1585sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.71  
XLOC\_1587sp|Q93XY5|TET18\_ARATH Tetraspanin-18 OS=Arabidopsis thaliana GN=At2g20230 PE=2 SV=1//7.88789e-11  
XLOC\_1590-/-  
XLOC\_1591sp|Q93W34|RP45C\_ARATH Polyadenylate-binding protein RBP45C OS=Arabidopsis thaliana GN=RBP45C PE=2 SV=1//1.33826e-99  
XLOC\_1592sp|P25093|FAAA\_RAT Fumarylacetoacetase OS=Rattus norvegicus GN=Fah PE=1 SV=1//3.25854e-12  
XLOC\_1593sp|P20825|POL2\_DROME Retrovirus-related Pol polyprotein from transposon 297 OS=Drosophila melanogaster GN=pol PE=4 SV  
XLOC\_1594sp|P69322|UBIQP\_PEA Polyubiquitin OS=Pisum sativum GN=PU1 PE=2 SV=2//0  
XLOC\_1594sp|082569|SUI1\_PIMBR Protein translation factor SUI1 homolog OS=Pimpinella brachycarpa PE=3 SV=1//2.84359e-44  
XLOC\_1594sp|P98183|C71DC\_CATRO Tabersonine 16-hydroxylase (Fragment) OS=Catharanthus roseus GN=CYP71D12 PE=1 SV=1//4.92671e-95  
XLOC\_1594-/-  
XLOC\_1595sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.47  
XLOC\_1595sp|C7G304|GOLS2\_SOLLG Galactinol synthase 2 OS=Solanum lycopersicum GN=GOLS2 PE=2 SV=1//1.7656e-169  
XLOC\_1602sp|P36183|ENPL\_HORVU Endoplasmin homolog OS=Hordeum vulgare PE=2 SV=1//1.62954e-06  
XLOC\_1602sp|P49310|GRP1\_SINAL Glycine-rich RNA-binding protein GRP1A OS=Sinapis alba PE=2 SV=1//1.78465e-26

XLOC\_1603sp|Q9S9Z7|P2C10\_ARATH Probable protein phosphatase 2C 10 OS=Arabidopsis thaliana GN=At1g34750 PE=1 SV=1//2.37901e-38  
XLOC\_1604sp|Q6R8G7|PH013\_ARATH Phosphate transporter PH01 homolog 3 OS=Arabidopsis thaliana GN=PH01;H3 PE=2 SV=2//3.60529e-33  
XLOC\_1607-//  
XLOC\_1608sp|Q9M0Y3|ENT3\_ARATH Equilibrative nucleotide transporter 3 OS=Arabidopsis thaliana GN=ENT3 PE=1 SV=1//2.9072e-34  
XLOC\_1611-//  
XLOC\_1612-//  
XLOC\_1613sp|Q9C6D2|MTK\_ARATH Methylthioribose kinase OS=Arabidopsis thaliana GN=MTK PE=1 SV=1//1.736e-31  
XLOC\_1614sp|P51362|TRPG\_PORPU Anthranilate synthase component II OS=Porphyra purpurea GN=trpG PE=4 SV=1//9.57381e-08  
XLOC\_1616sp|Q0J709|UP12\_ORYSJ Unknown protein DS12 from 2D-PAGE of leaf, chloroplastic OS=Oryza sativa subsp. japonica GN=Os08  
XLOC\_1616sp|Q0J709|UP12\_ORYSJ Unknown protein DS12 from 2D-PAGE of leaf, chloroplastic OS=Oryza sativa subsp. japonica GN=Os08  
XLOC\_1618sp|P42158|KC1D\_ARATH Casein kinase I isoform delta-like OS=Arabidopsis thaliana GN=At4g26100 PE=2 SV=2//3.43608e-12  
XLOC\_1620-//  
XLOC\_1621-//  
XLOC\_1621sp|B5BSX1|BAMO\_GLYUR Beta-amyrin 11-oxidase OS=Glycyrrhiza uralensis GN=CYP88D6 PE=1 SV=1//7.78366e-21  
XLOC\_1622-//  
XLOC\_1624sp|Q8GW78|CLP41\_ARATH Clp protease-related protein At4g12060, chloroplastic OS=Arabidopsis thaliana GN=At4g12060 PE=1  
XLOC\_1625sp|A7Y3C4|PSBD\_IPOPU Photosystem II D2 protein OS=Ipomoea purpurea GN=psbD PE=3 SV=1//5.8817e-106  
XLOC\_1625sp|A3EWL3|REV1\_ARATH DNA repair protein REV1 OS=Arabidopsis thaliana GN=REV1 PE=2 SV=1//9.28241e-12  
XLOC\_1625-//  
XLOC\_1626-//  
XLOC\_1626sp|Q8W3Z4|CAS1\_BETPL Cycloartenol synthase OS=Betula platyphylla GN=CASBPX1 PE=1 SV=1//4.32591e-15  
XLOC\_1627-//  
XLOC\_1628-//  
XLOC\_1629-//  
XLOC\_1631-//  
XLOC\_1631-//  
XLOC\_1632sp|Q62785|HAP28\_RAT 28 kDa heat- and acid-stable phosphoprotein OS=Rattus norvegicus GN=Pdap1 PE=1 SV=1//7.41298e-21  
XLOC\_1634sp|Q54HF6|LSM7\_DICDI Probable U6 snRNA-associated Sm-like protein LSM7 OS=Dictyostelium discoideum GN=lsm7 PE=3 SV=1/  
XLOC\_1634sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.29  
XLOC\_1635sp|P0A3U1|LTRA\_LACLM Group II intron-encoded protein LtrA OS=Lactococcus lactis subsp. cremoris (strain MG1363) GN=lt  
XLOC\_1636sp|O82768|HIS2\_ARATH Histidine biosynthesis bifunctional protein hisIE, chloroplastic OS=Arabidopsis thaliana GN=At1g  
XLOC\_1636sp|Q7XSK0|BGL18\_ORYSJ Beta-glucosidase 18 OS=Oryza sativa subsp. japonica GN=BGLU18 PE=2 SV=2//0  
XLOC\_1637sp|Q8LBL1|TPK1\_ARATH Two-pore potassium channel 1 OS=Arabidopsis thaliana GN=TPK1 PE=1 SV=2//1.35491e-71  
XLOC\_1637sp|P83877|TXN4A\_MOUSE Thioredoxin-like protein 4A OS=Mus musculus GN=Txnl4a PE=2 SV=1//8.09449e-08  
XLOC\_1638sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//3.69011e-07

XLOC\_1639sp|P00054|CYC\_SESIN Cytochrome c OS=Sesamum indicum PE=1 SV=1//9.84578e-63  
XLOC\_1642sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//5.656  
XLOC\_1643-/-  
XLOC\_1644-/-  
XLOC\_1646sp|Q80TA1|EPT1\_MOUSE Ethanolaminophosphotransferase 1 OS=Mus musculus GN=Ept1 PE=2 SV=3//1.57236e-08  
XLOC\_1651sp|Q42064|RL83\_ARATH 60S ribosomal protein L8-3 OS=Arabidopsis thaliana GN=RPL8C PE=1 SV=2//1.03725e-58  
XLOC\_1655sp|Q5VNM3|RH2\_ORYSJ DEAD-box ATP-dependent RNA helicase 2 OS=Oryza sativa subsp. japonica GN=Os01g0639100 PE=2 SV=1//  
XLOC\_1655-/-  
XLOC\_1656sp|Q9LSL5|LRK92\_ARATH L-type lectin-domain containing receptor kinase IX.2 OS=Arabidopsis thaliana GN=LECRK92 PE=2 SV  
XLOC\_1657sp|P80269|NDUS8\_SOLTU NADH dehydrogenase [ubiquinone] iron-sulfur protein 8, mitochondrial OS=Solanum tuberosum PE=1  
XLOC\_1657-/-  
XLOC\_1658sp|Q9C6C3|AGD2\_ARATH ADP-ribosylation factor GTPase-activating protein AGD2 OS=Arabidopsis thaliana GN=AGD2 PE=2 SV=1  
XLOC\_1658sp|Q01667|CAB6\_ARATH Chlorophyll a-b binding protein 6, chloroplastic OS=Arabidopsis thaliana GN=LHCA1 PE=1 SV=1//1.5  
XLOC\_1658sp|Q9SFB5|SCP27\_ARATH Serine carboxypeptidase-like 27 OS=Arabidopsis thaliana GN=SCPL27 PE=2 SV=1//3.02552e-83  
XLOC\_1658-/-  
XLOC\_1659sp|Q8VYA5|RSZ33\_ARATH Serine/arginine-rich splicing factor RS2Z33 OS=Arabidopsis thaliana GN=RS2Z33 PE=1 SV=1//1.7211  
XLOC\_1660-/-  
XLOC\_1660-/-  
XLOC\_1661sp|P51851|PDC2\_PEA Pyruvate decarboxylase isozyme 2 (Fragment) OS=Pisum sativum GN=PDC2 PE=2 SV=1//1.41173e-115  
XLOC\_1663sp|Q93Y22|COPD\_ARATH Coatomer subunit delta OS=Arabidopsis thaliana GN=At5g05010 PE=1 SV=2//0  
XLOC\_1664sp|Q7XLY8|ATL41\_ORYSJ E3 ubiquitin-protein ligase Os04g0590900 OS=Oryza sativa subsp. japonica GN=Os04g0590900 PE=2 S  
XLOC\_1665-/-  
XLOC\_1665sp|P10708|CB12\_SOLLC Chlorophyll a-b binding protein 7, chloroplastic OS=Solanum lycopersicum GN=CAB7 PE=3 SV=1//1.27  
XLOC\_1665-/-  
XLOC\_1668sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//9.88  
XLOC\_1668sp|Q10EJ2|CSPLU\_ORYSJ CASP-like protein Os03g0767900 OS=Oryza sativa subsp. japonica GN=Os03g0767900 PE=2 SV=1//9.777  
XLOC\_1668-/-  
XLOC\_1668-/-  
XLOC\_1668sp|Q42669|ACOC\_CUCMC Aconitate hydratase (Fragment) OS=Cucumis melo var. conomon GN=ACO PE=2 SV=1//1.36741e-16  
XLOC\_1669sp|Q9LN95|BH055\_ARATH Transcription factor bHLH55 OS=Arabidopsis thaliana GN=BHLH55 PE=2 SV=1//4.4584e-18  
XLOC\_1669sp|Q9FYA6|BCAT5\_ARATH Branched-chain-amino-acid aminotransferase 5, chloroplastic OS=Arabidopsis thaliana GN=BCAT5 PE  
XLOC\_1669sp|Q9M439|BCAT2\_ARATH Branched-chain-amino-acid aminotransferase 2, chloroplastic OS=Arabidopsis thaliana GN=BCAT2 PE  
XLOC\_1669sp|P46488|MDHG\_CUCSA Malate dehydrogenase, glyoxysomal OS=Cucumis sativus GN=MDHG PE=2 SV=1//0  
XLOC\_1669-/-  
XLOC\_1669sp|Q69U54|TLP12\_ORYSJ Tubby-like F-box protein 12 OS=Oryza sativa subsp. japonica GN=TULP12 PE=2 SV=1//3.34247e-54

XLOC\_1669-/-  
XLOC\_1670sp|Q9LMA1|FM01\_ARATH Probable flavin-containing monooxygenase 1 OS=Arabidopsis thaliana GN=FM01 PE=2 SV=1//8.33214e-1  
XLOC\_1670-/-  
XLOC\_1670-/-  
XLOC\_1670sp|O65718|CNGC2\_ARATH Cyclic nucleotide-gated ion channel 2 OS=Arabidopsis thaliana GN=CNGC2 PE=1 SV=1//5.07148e-125  
XLOC\_1670sp|Q39785|CHI2\_GOSHI Endochitinase 2 (Fragment) OS=Gossypium hirsutum PE=2 SV=2//1.49931e-54  
XLOC\_1670sp|Q39799|CHI1\_GOSHI Endochitinase 1 OS=Gossypium hirsutum PE=3 SV=1//3.4713e-157  
XLOC\_1670sp|Q9SX98|LHTL8\_ARATH Lysine histidine transporter-like 8 OS=Arabidopsis thaliana GN=AATL1 PE=1 SV=1//1.7182e-60  
XLOC\_1670sp|P29162|ASOL\_TOBAC L-ascorbate oxidase homolog OS=Nicotiana tabacum PE=2 SV=1//1.50422e-11  
XLOC\_1670sp|Q00624|ASOL\_BRANA L-ascorbate oxidase homolog OS=Brassica napus GN=Bp10 PE=2 SV=1//6.6664e-104  
XLOC\_1671-/-  
XLOC\_1671-/-  
XLOC\_1671-/-  
XLOC\_1671-/-  
XLOC\_1671sp|Q9SZN7|HIP26\_ARATH Heavy metal-associated isoprenylated plant protein 26 OS=Arabidopsis thaliana GN=HIP26 PE=1 SV  
XLOC\_1671sp|Q42564|APX3\_ARATH L-ascorbate peroxidase 3, peroxisomal OS=Arabidopsis thaliana GN=APX3 PE=1 SV=1//4.70652e-10  
XLOC\_1671sp|P81393|MYB08\_ANTMA Myb-related protein 308 OS=Antirrhinum majus GN=MYB308 PE=2 SV=1//5.06218e-108  
XLOC\_1672-/-  
XLOC\_1672sp|Q8L883|LAX5\_MEDTR Auxin transporter-like protein 5 OS=Medicago truncatula GN=LAX5 PE=2 SV=1//1.20783e-32  
XLOC\_1672-/-  
XLOC\_1673sp|Q9LRR4|R13L1\_ARATH Putative disease resistance RPP13-like protein 1 OS=Arabidopsis thaliana GN=RPPL1 PE=2 SV=1//1.  
XLOC\_1674-/-  
XLOC\_1675-/-  
XLOC\_1675sp|Q9LFN6|RH56\_ARATH DEAD-box ATP-dependent RNA helicase 56 OS=Arabidopsis thaliana GN=RH56 PE=2 SV=2//2.8812e-11  
XLOC\_1676-/-  
XLOC\_1676sp|Q6ZGL9|SIP1\_ORYSJ Signal peptide peptidase 1 OS>Oryza sativa subsp. japonica GN=SPP1 PE=2 SV=1//4.88633e-25  
XLOC\_1677-/-  
XLOC\_1677-/-  
XLOC\_1680sp|P69322|UBIQP\_PEA Polyubiquitin OS=Pisum sativum GN=PU1 PE=2 SV=2//0  
XLOC\_1681sp|Q9LNG5|PPP7L\_ARATH Serine/threonine-protein phosphatase 7 long form homolog OS=Arabidopsis thaliana GN=Atlg48120 P  
XLOC\_1682sp|Q945S8|ASHH3\_ARATH Histone-lysine N-methyltransferase ASHH3 OS=Arabidopsis thaliana GN=ASHH3 PE=2 SV=2//4.0867e-07  
XLOC\_1682sp|F4I0P8|VP35B\_ARATH Vacuolar protein sorting-associated protein 35B OS=Arabidopsis thaliana GN=VPS35B PE=1 SV=1//7.  
XLOC\_1684-/-  
XLOC\_1686sp|Q8GW61|STP14\_ARATH Sugar transport protein 14 OS=Arabidopsis thaliana GN=STP14 PE=2 SV=2//4.71703e-42  
XLOC\_1688sp|Q8H103|G6PIP\_ARATH Glucose-6-phosphate isomerase 1, chloroplastic OS=Arabidopsis thaliana GN=PGI1 PE=1 SV=1//1.042

XLOC\_1688sp|Q87SU3|RL27\_VIBPA 50S ribosomal protein L27 OS=Vibrio parahaemolyticus serotype O3:K6 (strain RIMD 2210633) GN=rplL  
XLOC\_1689sp|Q8LBB7|LOG5\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG5 OS=Arabidopsis thaliana GN=LOG5  
XLOC\_1691-/-  
XLOC\_1692-/-  
XLOC\_1692sp|081312|GAE3\_ARATH UDP-glucuronate 4-epimerase 3 OS=Arabidopsis thaliana GN=GAE3 PE=2 SV=1//0  
XLOC\_1692sp|082531|PSB1\_PETHY Proteasome subunit beta type-1 OS=Petunia hybrida GN=PBF1 PE=2 SV=1//4.68392e-154  
XLOC\_1694sp|Q9AR19|GCN5\_ARATH Histone acetyltransferase GCN5 OS=Arabidopsis thaliana GN=HAG1 PE=1 SV=1//3.88893e-26  
XLOC\_1695sp|P33082|AXX15\_SOYBN Auxin-induced protein X15 OS=Glycine max PE=2 SV=1//1.40286e-10  
XLOC\_1696-/-  
XLOC\_1698sp|Q9CA28|TKPR2\_ARATH Tetraketide alpha-pyrone reductase 2 OS=Arabidopsis thaliana GN=TKPR2 PE=2 SV=1//1.26814e-38  
XLOC\_1699sp|Q6NNI8|SAP1\_ARATH Zinc finger A20 and AN1 domain-containing stress-associated protein 1 OS=Arabidopsis thaliana GN=SAP1  
XLOC\_1702sp|Q84K16|AP1G1\_ARATH AP-1 complex subunit gamma-1 OS=Arabidopsis thaliana GN=GAMMA-ADR PE=1 SV=1//3.16903e-26  
XLOC\_1705sp|Q9M2Y6|Y3972\_ARATH Uncharacterized protein At3g49720 OS=Arabidopsis thaliana GN=At3g49720 PE=1 SV=1//1.66106e-71  
XLOC\_1706sp|Q9LJM4|IKU2\_ARATH Receptor-like protein kinase HAIKU2 OS=Arabidopsis thaliana GN=IKU2 PE=1 SV=1//0  
XLOC\_1706-/-  
XLOC\_1706sp|P00303|BABL\_CUCSA Basic blue protein OS=Cucumis sativus PE=1 SV=1//1.04087e-38  
XLOC\_1706sp|Q9LDX1|SGS3\_ARATH Protein SUPPRESSOR OF GENE SILENCING 3 OS=Arabidopsis thaliana GN=SGS3 PE=1 SV=1//1.47446e-119  
XLOC\_1707sp|P04146|COPIA\_DROME Copia protein OS=Drosophila melanogaster GN=GIP PE=1 SV=3//2.00117e-14  
XLOC\_1707sp|Q8N5L8|RP25L\_HUMAN Ribonuclease P protein subunit p25-like protein OS=Homo sapiens GN=RPP25L PE=1 SV=1//2.08079e-0  
XLOC\_1707-/-  
XLOC\_1707sp|049354|COQ3\_ARATH Hexaprenyldihydroxybenzoate methyltransferase, mitochondrial OS=Arabidopsis thaliana GN=COQ3 PE=  
XLOC\_1707sp|065718|CNGC2\_ARATH Cyclic nucleotide-gated ion channel 2 OS=Arabidopsis thaliana GN=CNGC2 PE=1 SV=1//0  
XLOC\_1708-/-  
XLOC\_1708sp|080905|S40A1\_ARATH Solute carrier family 40 member 1 OS=Arabidopsis thaliana GN=IREG1 PE=2 SV=1//1.41718e-19  
XLOC\_1708sp|F4KGN5|S40A2\_ARATH Solute carrier family 40 member 2 OS=Arabidopsis thaliana GN=IREG2 PE=2 SV=1//3.92041e-42  
XLOC\_1708sp|008863|BIRC3\_MOUSE Baculoviral IAP repeat-containing protein 3 OS=Mus musculus GN=Birc3 PE=1 SV=2//2.56335e-06  
XLOC\_1709-/-  
XLOC\_1709-/-  
XLOC\_1710-/-  
XLOC\_1710-/-  
XLOC\_1711-/-  
XLOC\_1712sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=Arabidopsis thaliana GN=AtMg00310 PE=4 SV=1//  
XLOC\_1712-/-  
XLOC\_1712-/-  
XLOC\_1712sp|Q9ZU90|SKI28\_ARATH F-box protein SKIP28 OS=Arabidopsis thaliana GN=SKIP28 PE=1 SV=1//4.24378e-64

XLOC\_1713-//  
XLOC\_1715sp|P48631|FD6E2\_SOYBN Omega-6 fatty acid desaturase, endoplasmic reticulum isozyme 2 OS=Glycine max GN=FAD2-2 PE=2 SV  
XLOC\_1718-//  
XLOC\_1723sp|Q9SE97|FH1\_ARATH Formin-like protein 1 OS=Arabidopsis thaliana GN=FH1 PE=1 SV=1//2.58864e-11  
XLOC\_1723sp|O23278|PP310\_ARATH Pentatricopeptide repeat-containing protein At4g14190, chloroplastic OS=Arabidopsis thaliana GN  
XLOC\_1725sp|P03010|TRAC9\_MAIZE Putative AC9 transposase OS=Zea mays PE=4 SV=1//8.11531e-28  
XLOC\_1728sp|Q9C944|H2AV3\_ARATH Probable histone H2A variant 3 OS=Arabidopsis thaliana GN=At1g52740 PE=1 SV=1//7.86525e-21  
XLOC\_1728sp|P62302|RS13\_SOYBN 40S ribosomal protein S13 OS=Glycine max GN=RPS13 PE=2 SV=1//3.26306e-101  
XLOC\_1729sp|O80739|POT12\_ARATH Putative potassium transporter 12 OS=Arabidopsis thaliana GN=POT12 PE=1 SV=2//1.48414e-31  
XLOC\_1733sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.76  
XLOC\_1736sp|Q9FQ03|XRN3\_ARATH '3';-3'; exoribonuclease 3 OS=Arabidopsis thaliana GN=XRN3 PE=2 SV=1//1.1796e-11  
XLOC\_1736-//  
XLOC\_1742sp|Q42539|PIMT\_ARATH Protein-L-isoaspartate O-methyltransferase OS=Arabidopsis thaliana GN=PCM PE=2 SV=3//3.533e-69  
XLOC\_1745sp|P53997|SET\_DROME Protein SET OS=Drosophila melanogaster GN=Set PE=1 SV=2//3.56724e-53  
XLOC\_1745sp|Q9S7V4|HA22A\_ARATH HVA22-like protein a OS=Arabidopsis thaliana GN=HVA22A PE=2 SV=1//9.40393e-60  
XLOC\_1745-//  
XLOC\_1749sp|Q39065|COPT1\_ARATH Copper transporter 1 OS=Arabidopsis thaliana GN=COPT1 PE=2 SV=2//9.54306e-33  
XLOC\_1749-//  
XLOC\_1749sp|Q8LGG8|USPAL\_ARATH Universal stress protein A-like protein OS=Arabidopsis thaliana GN=At3g01520 PE=1 SV=2//1.04199  
XLOC\_1751sp|P42855|ZB14\_BRAJU 14 kDa zinc-binding protein (Fragment) OS=Brassica juncea PE=3 SV=1//1.00364e-29  
XLOC\_1751-//  
XLOC\_1751sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//1.07466e-34  
XLOC\_1751sp|Q93YQ1|RTOR1\_ARATH Regulatory-associated protein of TOR 1 OS=Arabidopsis thaliana GN=RAPTOR1 PE=1 SV=1//9.56661e-1  
XLOC\_1752-//  
XLOC\_1752-//  
XLOC\_1753sp|Q71H73|H33\_VITVI Histone H3.3 OS>Vitis vinifera PE=2 SV=3//1.34847e-92  
XLOC\_1756sp|P83877|TXN4A\_MOUSE Thioredoxin-like protein 4A OS=Mus musculus GN=Txn14a PE=2 SV=1//7.00915e-20  
XLOC\_1757-//  
XLOC\_1757-//  
XLOC\_1757-//  
XLOC\_1766-//  
XLOC\_1768sp|Q9LW86|SUT34\_ARATH Probable sulfate transporter 3.4 OS=Arabidopsis thaliana GN=SULTR3;4 PE=2 SV=1//1.85093e-08  
XLOC\_1768-//  
XLOC\_1770sp|O22666|RGP3\_ARATH UDP-arabinopyranose mutase 3 OS=Arabidopsis thaliana GN=RGP3 PE=1 SV=2//3.45578e-09  
XLOC\_1771-//

XLOC\_1772sp|Q9SB67|NRT32\_ARATH High-affinity nitrate transporter 3.2 OS=Arabidopsis thaliana GN=NRT3.2 PE=2 SV=1//1.06039e-61  
XLOC\_1774sp|P53997|SET\_DROME Protein SET OS=Drosophila melanogaster GN=Set PE=1 SV=2//2.21181e-49  
XLOC\_1775-/-  
XLOC\_1776-/-  
XLOC\_1778-/-  
XLOC\_1779-/-  
XLOC\_1780sp|Q6K833|MCES2\_ORYSJ mRNA cap guanine-N7 methyltransferase 2 OS=Oryza sativa subsp. japonica GN=Os02g0780600 PE=2 SV=1//0  
XLOC\_1781sp|O48922|C98A2\_SOYBN Cytochrome P450 98A2 OS=Glycine max GN=CYP98A2 PE=2 SV=1//0  
XLOC\_1781sp|O65780|GALE1\_CYATE UDP-glucose 4-epimerase GEPI42 OS=Cyamopsis tetragonoloba PE=2 SV=1//1.75558e-24  
XLOC\_1781sp|COLGS2|Y4361\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At4g36180 OS=Arabidopsis thaliana GN=COLGS2 PE=2 SV=1//1.12248e-08  
XLOC\_1783-/-  
XLOC\_1783sp|Q7Z9L3|EXGA\_ASPOR Glucan 1,3-beta-glucosidase A OS=Aspergillus oryzae (strain ATCC 42149 / RIB 40) GN=exgA PE=1 SV=1//1.12248e-08  
XLOC\_1785sp|Q9SUG3|ITPK2\_ARATH Inositol-tetrakisphosphate 1-kinase 2 OS=Arabidopsis thaliana GN=ITPK2 PE=2 SV=2//6.41585e-08  
XLOC\_1785sp|Q9LX65|VATH\_ARATH V-type proton ATPase subunit H OS=Arabidopsis thaliana GN=VHA-H PE=2 SV=1//4.50147e-53  
XLOC\_1785-/-  
XLOC\_1785sp|Q84KP0|DFRA\_PYRGO Bifunctional dihydroflavonol 4-reductase/flavanone 4-reductase OS=Pyrus communis GN=DFR PE=1 SV=1//1.42844e-15  
XLOC\_1786sp|Q8W206|CSN6A\_ARATH COP9 signalosome complex subunit 6a OS=Arabidopsis thaliana GN=CSN6A PE=1 SV=2//2.45539e-10  
XLOC\_1786sp|P83877|TXN4A\_MOUSE Thioredoxin-like protein 4A OS=Mus musculus GN=Txnl4a PE=2 SV=1//1.42844e-15  
XLOC\_1786sp|F4I933|STR8\_ARATH Rhodanese-like domain-containing protein 8, chloroplastic OS=Arabidopsis thaliana GN=STR8 PE=2 SV=1//1.12248e-08  
XLOC\_1790-/-  
XLOC\_1790sp|Q8LPT1|AB6B\_ARATH ABC transporter B family member 6 OS=Arabidopsis thaliana GN=ABCB6 PE=1 SV=2//4.92393e-19  
XLOC\_1791-/-  
XLOC\_1797sp|P93286|CCMF\_ARATH Putative cytochrome c biogenesis ccmF-like mitochondrial protein OS=Arabidopsis thaliana GN=CCMF PE=1 SV=1//1.12248e-08  
XLOC\_1797sp|P31839|NU1M\_OENBE NADH-ubiquinone oxidoreductase chain 1 OS=Oenothera berteriana GN=ND1 PE=2 SV=1//2.90188e-22  
XLOC\_1797sp|Q2L926|CLPP\_GOSHI ATP-dependent Clp protease proteolytic subunit OS=Gossypium hirsutum GN=clpP PE=3 SV=1//5.06215e-08  
XLOC\_1798-/-  
XLOC\_1798sp|Q9DBB4|NAA16\_MOUSE N-alpha-acetyltransferase 16, NatA auxiliary subunit OS=Mus musculus GN=Naa16 PE=2 SV=1//9.1368e-08  
XLOC\_1799sp|Q9SR02|MED14\_ARATH Mediator of RNA polymerase II transcription subunit 14 OS=Arabidopsis thaliana GN=MED14 PE=1 SV=1//1.12248e-08  
XLOC\_1799sp|Q9S6Z8|TPK5\_ARATH Two-pore potassium channel 5 OS=Arabidopsis thaliana GN=TPK5 PE=1 SV=1//1.12248e-08  
XLOC\_1800-/-  
XLOC\_1801sp|Q688R1|MTP1\_ORYSJ Metal tolerance protein 1 OS=Oryza sativa subsp. japonica GN=MTP1 PE=2 SV=1//7.49933e-32  
XLOC\_1802sp|Q8LBI9|EDL16\_ARATH Sugar transporter ERD6-like 16 OS=Arabidopsis thaliana GN=At5g18840 PE=2 SV=2//6.23547e-07  
XLOC\_1802-/-  
XLOC\_1802sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//2.76135e-75  
XLOC\_1803-/-

XLOC\_1805sp|Q9Y5Q8|TF3C5\_HUMAN General transcription factor 3C polypeptide 5 OS=Homo sapiens GN=GTF3C5 PE=1 SV=2//3.21161e-29  
XLOC\_1806sp|Q9SA27|RH36\_ARATH DEAD-box ATP-dependent RNA helicase 36 OS=Arabidopsis thaliana GN=RH36 PE=2 SV=1//4.09769e-22  
XLOC\_1807sp|P42791|RL182\_ARATH 60S ribosomal protein L18-2 OS=Arabidopsis thaliana GN=RPL18B PE=1 SV=2//2.51229e-117  
XLOC\_1807sp|005000|NU2M\_ARATH NADH-ubiquinone oxidoreductase chain 2 OS=Arabidopsis thaliana GN=ND2 PE=2 SV=2//6.21062e-23  
XLOC\_1807sp|Q5HZ60|MCES2\_ARATH mRNA cap guanine-N7 methyltransferase 2 OS=Arabidopsis thaliana GN=At3g52210 PE=2 SV=1//2.15822  
XLOC\_1809sp|Q9KG32|Y283\_BACHD Uncharacterized isomerase BH0283 OS=Bacillus halodurans (strain ATCC BAA-125 / DSM 18197 / FERM  
XLOC\_1809sp|Q8RVH5|7SBG2\_SOYBN Basic 7S globulin 2 OS=Glycine max PE=1 SV=1//9.29323e-10  
XLOC\_1809-//  
XLOC\_1809sp|Q9JKB8|PRP18\_RAT Pre-mRNA-splicing factor 18 OS=Rattus norvegicus GN=Prpf18 PE=2 SV=1//5.55812e-51  
XLOC\_1810sp|P32869|PSAD\_CUCSA Photosystem I reaction center subunit II, chloroplastic OS=Cucumis sativus GN=psaD PE=1 SV=1//6.  
XLOC\_1810-//  
XLOC\_1810-//  
XLOC\_1810sp|Q8H7Y6|HFA2D\_ORYSJ Heat stress transcription factor A-2d OS=Oryza sativa subsp. japonica GN=HSFA2D PE=2 SV=2//4.07  
XLOC\_1814-//  
XLOC\_1816sp|Q94AH9|MD36A\_ARATH Mediator of RNA polymerase II transcription subunit 36a OS=Arabidopsis thaliana GN=MED36A PE=1  
XLOC\_1818sp|Q945L0|CX6B2\_ARATH Cytochrome c oxidase subunit 6b-2 OS=Arabidopsis thaliana GN=COX6B-2 PE=2 SV=1//3.36382e-43  
XLOC\_1820sp|P51428|RT10\_PEA Ribosomal protein S10, mitochondrial OS=Pisum sativum GN=RPS10 PE=2 SV=1//1.07466e-31  
XLOC\_1820-//  
XLOC\_1821-//  
XLOC\_1821-//  
XLOC\_1825sp|004300|UPTG\_PEA Alpha-1,4-glucan-protein synthase [UDP-forming] OS=Pisum sativum GN=UPTG PE=1 SV=1//4.57915e-09  
XLOC\_1828sp|Q40153|LE14B\_LITER LEC14B protein OS=Lithospermum erythrorhizon PE=2 SV=1//2.53009e-13  
XLOC\_1828sp|Q6ZGL9|SIP1\_ORYSJ Signal peptide peptidase 1 OS=Oryza sativa subsp. japonica GN=SPP1 PE=2 SV=1//8.81913e-18  
XLOC\_1830-//  
XLOC\_1832-//  
XLOC\_1832-//  
XLOC\_1833sp|P61600|NAA20\_MOUSE N-alpha-acetyltransferase 20 OS=Mus musculus GN=Naa20 PE=2 SV=1//1.48414e-16  
XLOC\_1833sp|Q9FUM9|HMT2\_MAIZE Homocysteine S-methyltransferase 2 OS=Zea mays GN=HMT-2 PE=2 SV=1//8.95792e-25  
XLOC\_1833sp|Q9MIW4|HMT2\_ARATH Homocysteine S-methyltransferase 2 OS=Arabidopsis thaliana GN=HMT-2 PE=1 SV=1//1.16548e-20  
XLOC\_1835sp|Q94IR2|CCD1\_PHAVU Carotenoid 9,10(9&apos;,10&apos;)-cleavage dioxygenase 1 OS=Phaseolus vulgaris GN=CCD1 PE=1 SV=1  
XLOC\_1836sp|Q0WPZ6|PP158\_ARATH Pentatricopeptide repeat-containing protein At2g17140 OS=Arabidopsis thaliana GN=At2g17140 PE=2  
XLOC\_1839-//  
XLOC\_1841sp|Q653P0|KOR1\_ORYSJ Potassium channel KOR1 OS=Oryza sativa subsp. japonica GN=Os06g0250600 PE=2 SV=1//9.94711e-60  
XLOC\_1842sp|Q94F30|ESD4\_ARATH Ubiquitin-like-specific protease ESD4 OS=Arabidopsis thaliana GN=ESD4 PE=1 SV=1//7.42661e-14  
XLOC\_1845sp|Q9SUI5|PSAK\_ARATH Photosystem I reaction center subunit psaK, chloroplastic OS=Arabidopsis thaliana GN=PSAK PE=2 S



XLOC\_1846sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.61  
XLOC\_1846-//-  
XLOC\_1851sp|A6UQ90|GUA\_A\_METVS GMP synthase [glutamine-hydrolyzing] subunit A OS=Methanococcus vannielii (strain SB / ATCC 350  
XLOC\_1852sp|004287|FKB12\_VICFA Peptidyl-prolyl cis-trans isomerase FKBP12 OS=Vicia faba GN=FKBP12 PE=1 SV=1//9.00162e-57  
XLOC\_1853-//-  
XLOC\_1855sp|A7ZE19|RF2\_CAMC1 Peptide chain release factor 2 OS=Campylobacter concisus (strain 13826) GN=prfB PE=3 SV=1//2.7647  
XLOC\_1859sp|Q2MY58|PATA3\_SOLTU Patatin group A-3 OS=Solanum tuberosum PE=2 SV=1//9.52321e-26  
XLOC\_1859sp|Q86K80|U420\_DICDI UPF0420 protein OS=Dictyostelium discoideum GN=DDB\_G0277179 PE=3 SV=1//1.95692e-23  
XLOC\_1860sp|Q9SCQ7|AN32\_ARATH Acidic leucine-rich nuclear phosphoprotein 32-related protein OS=Arabidopsis thaliana GN=At3g506  
XLOC\_1864sp|Q941R6|MLP31\_ARATH MLP-like protein 31 OS=Arabidopsis thaliana GN=MLP31 PE=1 SV=2//9.50432e-59  
XLOC\_1865sp|P20825|POL2\_DROME Retrovirus-related Pol polyprotein from transposon 297 OS=Drosophila melanogaster GN=pol PE=4 SV  
XLOC\_1865sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.78  
XLOC\_1870sp|Q9C671|P4K2B\_ARATH Probable phosphatidylinositol 4-kinase type 2-beta Atlg26270 OS=Arabidopsis thaliana GN=Atlg262  
XLOC\_1872sp|Q6TAW2|SERP2\_MOUSE Stress-associated endoplasmic reticulum protein 2 OS=Mus musculus GN=Serp2 PE=2 SV=2//1.04232e-  
XLOC\_1872-//-  
XLOC\_1873sp|O64459|UGPA\_PYRKY UTP--glucose-1-phosphate uridylyltransferase OS=Pyrus pyrifolia PE=2 SV=1//1.52336e-13  
XLOC\_1876-//-  
XLOC\_1877sp|Q6R2J8|SRF8\_ARATH Protein STRUBBELIG-RECEPTOR FAMILY 8 OS=Arabidopsis thaliana GN=SRF8 PE=2 SV=1//0  
XLOC\_1878-//-  
XLOC\_1881sp|Q94DM8|UFM1\_ORYSJ Ubiquitin-fold modifier 1 OS>Oryza sativa subsp. japonica GN=Os01g0962400 PE=3 SV=1//2.84637e-13  
XLOC\_1882sp|Q99315|YG31B\_YEAST Transposon Ty3-G Gag-Pol polyprotein OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) G  
XLOC\_1884sp|Q9BZV1|UBXN6\_HUMAN UBX domain-containing protein 6 OS=Homo sapiens GN=UBXN6 PE=1 SV=1//3.41319e-09  
XLOC\_1886sp|Q6DBN1|Y4845\_ARATH BTB/POZ domain-containing protein At4g08455 OS=Arabidopsis thaliana GN=At4g08455 PE=1 SV=1//2.2  
XLOC\_1887sp|Q9M291|SC24C\_ARATH Protein transport protein Sec24-like CEF OS=Arabidopsis thaliana GN=CEF PE=1 SV=3//3.98286e-29  
XLOC\_1888-//-  
XLOC\_1890-//-  
XLOC\_1891sp|Q9LKR4|FRS10\_ARATH Putative protein FARI-RELATED SEQUENCE 10 OS=Arabidopsis thaliana GN=FRS10 PE=2 SV=2//0  
XLOC\_1893sp|Q6VAF7|TBB5\_GOSHI Tubulin beta-5 chain OS=Gossypium hirsutum PE=2 SV=1//4.32264e-142  
XLOC\_1900sp|Q2V3H0|PP322\_ARATH Pentatricopeptide repeat-containing protein At4g18975, chloroplastic OS=Arabidopsis thaliana GN  
XLOC\_1900sp|Q05737|YPTM2\_MAIZE GTP-binding protein YPTM2 OS=Zea mays GN=YPTM2 PE=2 SV=1//2.71937e-16  
XLOC\_1900sp|BOBN95|HARB1\_RAT Putative nuclease HARB1 OS=Rattus norvegicus GN=Harb1 PE=2 SV=1//1.80824e-14  
XLOC\_1901-//-  
XLOC\_1901-//-  
XLOC\_1903sp|P02982|TCR1\_ECOLX Tetracycline resistance protein, class A OS=Escherichia coli GN=tetA PE=3 SV=2//2.45498e-08  
XLOC\_1911sp|Q9SGW3|RP12A\_ARATH 26S proteasome non-ATPase regulatory subunit RPN12A OS=Arabidopsis thaliana GN=RPN12A PE=1 SV=1

XLOC\_1911-//  
XLOC\_1911sp|Q6NPT8|PP2B1\_ARATH F-box protein PP2-B1 OS=Arabidopsis thaliana GN=PP2B1 PE=1 SV=1//3.45836e-73  
XLOC\_1912sp|Q84TF5|RHA4A\_ARATH RING-H2 zinc finger protein RHA4a OS=Arabidopsis thaliana GN=RHA4A PE=2 SV=1//2.99102e-16  
XLOC\_1913sp|Q05047|C72A1\_CATRO Secologanin synthase OS=Catharanthus roseus GN=CYP72A1 PE=2 SV=1//7.90983e-24  
XLOC\_1913sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.66235e-95  
XLOC\_1915sp|F4K1B1|RPAP2\_ARATH Putative RNA polymerase II subunit B1 CTD phosphatase RPAP2 homolog OS=Arabidopsis thaliana GN=  
XLOC\_1916sp|Q9C566|CYP40\_ARATH Peptidyl-prolyl cis-trans isomerase CYP40 OS=Arabidopsis thaliana GN=CYP40 PE=2 SV=1//8.61282e-  
XLOC\_1919-//  
XLOC\_1923-//  
XLOC\_1926sp|O04616|Y4115\_ARATH Uncharacterized protein At4g01150, chloroplastic OS=Arabidopsis thaliana GN=At4g01150 PE=1 SV=1  
XLOC\_1927sp|Q9SRX2|RL191\_ARATH 60S ribosomal protein L19-1 OS=Arabidopsis thaliana GN=RPL19A PE=2 SV=1//1.04631e-12  
XLOC\_1928sp|Q9LQU4|PCR2\_ARATH Protein PLANT CADMIUM RESISTANCE 2 OS=Arabidopsis thaliana GN=PCR2 PE=1 SV=1//1.04716e-58  
XLOC\_1930-//  
XLOC\_1930sp|Q8W425|PSMD6\_ORYSJ 26S proteasome non-ATPase regulatory subunit 6 OS=Oryza sativa subsp. japonica GN=RPN7 PE=2 SV=  
XLOC\_1933sp|Q9SU30|CPR30\_ARATH F-box protein CPR30 OS=Arabidopsis thaliana GN=CPR30 PE=1 SV=2//2.62299e-128  
XLOC\_1936sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//8.83064e-19  
XLOC\_1936sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.61683e-62  
XLOC\_1937sp|P24280|SEC14\_YEAST SEC14 cytosolic factor OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=SEC14 PE=1 S  
XLOC\_1937-//  
XLOC\_1938sp|Q75LR7|SAPK1\_ORYSJ Serine/threonine-protein kinase SAPK1 OS=Oryza sativa subsp. japonica GN=SAPK1 PE=1 SV=1//0  
XLOC\_1938-//  
XLOC\_1939sp|P46299|RS4\_GOSHI 40S ribosomal protein S4 OS=Gossypium hirsutum GN=RPS4 PE=2 SV=1//5.83319e-110  
XLOC\_1941sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//9.55  
XLOC\_1943-//  
XLOC\_1944sp|P14009|14KD\_DAUCA 14 kDa proline-rich protein DC2.15 OS=Daucus carota PE=2 SV=1//1.2088e-13  
XLOC\_1947sp|F4I933|STR8\_ARATH Rhodanese-like domain-containing protein 8, chloroplastic OS=Arabidopsis thaliana GN=STR8 PE=2 S  
XLOC\_1953sp|Q12955|ANK3\_HUMAN Ankyrin-3 OS=Homo sapiens GN=ANK3 PE=1 SV=3//9.90342e-06  
XLOC\_1954sp|Q8LCL3|RL272\_ARATH 60S ribosomal protein L27-2 OS=Arabidopsis thaliana GN=RPL27B PE=2 SV=2//3.05814e-21  
XLOC\_1955sp|Q93Z27|CML45\_ARATH Probable calcium-binding protein CML45 OS=Arabidopsis thaliana GN=CML45 PE=1 SV=1//8.40589e-39  
XLOC\_1955-//  
XLOC\_1956-//  
XLOC\_1958sp|Q9XHE4|RL37A\_GOSHI 60S ribosomal protein L37a OS=Gossypium hirsutum GN=RPL37A PE=3 SV=1//1.18659e-56  
XLOC\_1961sp|Q9M2Z4|MSBP2\_ARATH Membrane steroid-binding protein 2 OS=Arabidopsis thaliana GN=MSBP2 PE=1 SV=1//1.07453e-54  
XLOC\_1962-//  
XLOC\_1962sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.39

XLOC\_1964sp|Q8S9H7|DIV\_ANTMA Transcription factor DIVARICATA OS=Antirrhinum majus GN=DIVARICATA PE=2 SV=1//8.01962e-21  
XLOC\_1965sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=Oryza sativa subsp  
XLOC\_1966sp|O64937|EF1A\_ORYSJ Elongation factor 1-alpha OS=Oryza sativa subsp. japonica GN=REFA1 PE=2 SV=2//5.82335e-23  
XLOC\_1967sp|Q8VYA5|RSZ33\_ARATH Serine/arginine-rich splicing factor RS2Z33 OS=Arabidopsis thaliana GN=RS2Z33 PE=1 SV=1//1.7038  
XLOC\_1967sp|Q54GS1|CL16A\_DICDI Protein CLEC16A homolog OS=Dictyostelium discoideum GN=DDB\_G0289943 PE=3 SV=1//6.65234e-07  
XLOC\_1968-//  
XLOC\_1971-//  
XLOC\_1971sp|Q43155|GLTB\_SPIOL Ferredoxin-dependent glutamate synthase, chloroplastic OS=Spinacia oleracea PE=1 SV=3//5.30473e-  
XLOC\_1973sp|Q9LHN8|F6H1\_ARATH Feruloyl CoA ortho-hydroxylase 1 OS=Arabidopsis thaliana GN=F6' H1 PE=1 SV=1//1.83083e-124  
XLOC\_1974sp|Q9SY66|FRS11\_ARATH Protein FAR1-RELATED SEQUENCE 11 OS=Arabidopsis thaliana GN=FRS11 PE=2 SV=1//0  
XLOC\_1974-//  
XLOC\_1975sp|O24412|PSD7\_ARATH Probable 26S proteasome non-ATPase regulatory subunit 7 OS=Arabidopsis thaliana GN=RPN8 PE=2 SV=  
XLOC\_1981sp|Q2L934|PSBH\_GOSHI Photosystem II reaction center protein H OS=Gossypium hirsutum GN=psbH PE=3 SV=1//2.02122e-38  
XLOC\_1984sp|P42055|VDAC1\_SOLTU Mitochondrial outer membrane protein porin of 34 kDa OS=Solanum tuberosum PE=1 SV=2//6.28848e-9  
XLOC\_1984sp|Q9SD53|Y3720\_ARATH UPF0481 protein At3g47200 OS=Arabidopsis thaliana GN=At3g47200 PE=1 SV=1//2.60196e-13  
XLOC\_1984sp|Q6NQ88|DDB2\_ARATH Protein DAMAGED DNA-BINDING 2 OS=Arabidopsis thaliana GN=DDB2 PE=1 SV=1//3.2898e-93  
XLOC\_1984sp|Q9UT06|YLWB\_SCHPO Uncharacterized GTP-binding protein P8A3.11c, mitochondrial OS=Schizosaccharomyces pombe (strain  
XLOC\_1988sp|Q9SHH7|GSTUP\_ARATH Glutathione S-transferase U25 OS=Arabidopsis thaliana GN=GSTU25 PE=2 SV=1//7.47124e-46  
XLOC\_1990sp|Q6NQK2|NAC8\_ARATH NAC domain-containing protein 8 OS=Arabidopsis thaliana GN=NAC008 PE=2 SV=1//6.83904e-27  
XLOC\_1991sp|Q9FN09|NPY3\_ARATH BTB/POZ domain-containing protein NPY3 OS=Arabidopsis thaliana GN=NPY3 PE=2 SV=1//1.78305e-07  
XLOC\_1993sp|O49339|PTI12\_ARATH PTI1-like tyrosine-protein kinase 2 OS=Arabidopsis thaliana GN=PTI12 PE=1 SV=1//5.74454e-16  
XLOC\_1997sp|Q6R8G6|PH014\_ARATH Phosphate transporter PH01 homolog 4 OS=Arabidopsis thaliana GN=PH01-H4 PE=2 SV=1//4.31823e-94  
XLOC\_1997sp|Q9ATY5|UVH3\_ARATH DNA repair protein UVH3 OS=Arabidopsis thaliana GN=UVH3 PE=2 SV=1//1.37427e-28  
XLOC\_1997sp|P53536|PHSL\_VICFA Alpha-1,4 glucan phosphorylase L isozyme, chloroplastic/amyloplastic OS=Vicia faba GN=PH01 PE=2  
XLOC\_1999sp|Q9FL28|FLS2\_ARATH LRR receptor-like serine/threonine-protein kinase FLS2 OS=Arabidopsis thaliana GN=FLS2 PE=1 SV=1  
XLOC\_1999sp|Q9M8K6|MUTE\_ARATH Transcription factor MUTE OS=Arabidopsis thaliana GN=MUTE PE=2 SV=1//2.22794e-71  
XLOC\_2000sp|Q9P2Y5|UVRAG\_HUMAN UV radiation resistance-associated gene protein OS=Homo sapiens GN=UVRAG PE=1 SV=1//1.64753e-12  
XLOC\_2002-//  
XLOC\_2003sp|Q9LTF2|RS103\_ARATH 40S ribosomal protein S10-3 OS=Arabidopsis thaliana GN=RPS10C PE=2 SV=2//9.50464e-52  
XLOC\_2004-//  
XLOC\_2018-//  
XLOC\_2020-//  
XLOC\_2021sp|Q9C5Y0|PLDD1\_ARATH Phospholipase D delta OS=Arabidopsis thaliana GN=PLDDELTA PE=1 SV=2//1.06676e-12  
XLOC\_2021-//  
XLOC\_2023-//

XLOC\_2025sp|Q9SHI2|Y1723\_ARATH Leucine-rich repeat receptor-like serine/threonine-protein kinase At1g17230 OS=Arabidopsis thal  
XLOC\_2028sp|Q84MB3|ACCH1\_ARATH 1-aminocyclopropane-1-carboxylate oxidase homolog 1 OS=Arabidopsis thaliana GN=At1g06620 PE=2 S  
XLOC\_2030-/-  
XLOC\_2030sp|O23016|KCAB\_ARATH Probable voltage-gated potassium channel subunit beta OS=Arabidopsis thaliana GN=KAB1 PE=1 SV=1/  
XLOC\_2032sp|Q5R8J8|DNJB4\_PONAB DnaJ homolog subfamily B member 4 OS=Pongo abelii GN=DNAJB4 PE=2 SV=1//7.29239e-08  
XLOC\_2034sp|Q6NQJ8|SDG40\_ARATH Protein SET DOMAIN GROUP 40 OS=Arabidopsis thaliana GN=SDG40 PE=2 SV=1//2.32403e-07  
XLOC\_2034-/-  
XLOC\_2035sp|Q8GW61|STP14\_ARATH Sugar transport protein 14 OS=Arabidopsis thaliana GN=STP14 PE=2 SV=2//2.89517e-10  
XLOC\_2035sp|Q9FPS7|UBP20\_ARATH Ubiquitin carboxyl-terminal hydrolase 20 OS=Arabidopsis thaliana GN=UBP20 PE=2 SV=1//2.14868e-1  
XLOC\_2036sp|Q8S8M5|ABIL1\_ARATH Protein ABIL1 OS=Arabidopsis thaliana GN=ABIL1 PE=1 SV=1//7.61688e-11  
XLOC\_2037-/-  
XLOC\_2038-/-  
XLOC\_2038-/-  
XLOC\_2039sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//8.68141e-15  
XLOC\_2039sp|Q8GW61|STP14\_ARATH Sugar transport protein 14 OS=Arabidopsis thaliana GN=STP14 PE=2 SV=2//7.77892e-40  
XLOC\_2040sp|P49215|RS17\_SOLLC 40S ribosomal protein S17 OS=Solanum lycopersicum GN=RPS17 PE=2 SV=3//2.40726e-36  
XLOC\_2040sp|P81391|MYB05\_ANTMA Myb-related protein 305 OS=Antirrhinum majus GN=MYB305 PE=2 SV=1//1.80859e-14  
XLOC\_2040sp|Q9SXA1|P4KA1\_ARATH Phosphatidylinositol 4-kinase alpha OS=Arabidopsis thaliana GN=PI4KALPHA1 PE=1 SV=2//3.08705e-2  
XLOC\_2041sp|Q9LFFQ3|SNL2\_ARATH Paired amphipathic helix protein Sin3-like 2 OS=Arabidopsis thaliana GN=SNL2 PE=1 SV=2//3.01968e  
XLOC\_2042sp|Q9LFFQ3|SNL2\_ARATH Paired amphipathic helix protein Sin3-like 2 OS=Arabidopsis thaliana GN=SNL2 PE=1 SV=2//3.00322e  
XLOC\_2045-/-  
XLOC\_2046sp|Q9M2D2|YU88\_ARATH UPF0187 protein At3g61320, chloroplastic OS=Arabidopsis thaliana GN=At3g61320 PE=2 SV=2//2.13114  
XLOC\_2046-/-  
XLOC\_2047sp|Q32LE3|CETN1\_BOVIN Centrin-1 OS=Bos taurus GN=CETN1 PE=2 SV=1//1.67678e-07  
XLOC\_2048sp|Q9T068|EPFL2\_ARATH EPIDERMAL PATTERNING FACTOR-like protein 2 OS=Arabidopsis thaliana GN=EPFL2 PE=2 SV=1//1.55424e  
XLOC\_2048sp|COLGT1|Y5129\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At5g10290 OS=Arabidopsis thaliana GN  
XLOC\_2048sp|COLGT1|Y5129\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At5g10290 OS=Arabidopsis thaliana GN  
XLOC\_2048sp|Q9ASU1|DGAT2\_ARATH Diacylglycerol O-acyltransferase 2 OS=Arabidopsis thaliana GN=DGAT2 PE=2 SV=1//1.31256e-47  
XLOC\_2049sp|Q0IU52|ASP1\_ORYSJ Aspartic proteinase Asp1 OS=Oryza sativa subsp. japonica GN=ASP1 PE=2 SV=1//2.37931e-75  
XLOC\_2049sp|O81148|PSA4\_ARATH Proteasome subunit alpha type-4 OS=Arabidopsis thaliana GN=PAC1 PE=1 SV=1//4.83865e-159  
XLOC\_2050sp|Q8H184|PT106\_ARATH Probable sugar phosphate/phosphate translocator At1g06470 OS=Arabidopsis thaliana GN=At1g06470  
XLOC\_2050sp|Q9FUS9|GSTUI\_ARATH Glutathione S-transferase U18 OS=Arabidopsis thaliana GN=GSTU18 PE=2 SV=1//8.30945e-61  
XLOC\_2050sp|P37707|B2\_DAUCA B2 protein OS=Daucus carota PE=2 SV=1//7.4242e-90  
XLOC\_2050-/-  
XLOC\_2051-/-

XLOC\_2051sp|P29136|MEP1\_SOYBN Metalloendoproteinase 1 OS=Glycine max PE=1 SV=2//2.22482e-69  
XLOC\_2051sp|P54001|P4HA1\_RAT Prolyl 4-hydroxylase subunit alpha-1 OS=Rattus norvegicus GN=P4ha1 PE=2 SV=2//1.19058e-29  
XLOC\_2051sp|Q9LFG3|SNL2\_ARATH Paired amphipathic helix protein Sin3-like 2 OS=Arabidopsis thaliana GN=SNL2 PE=1 SV=2//1.80174e  
XLOC\_2051sp|Q8GW61|STP14\_ARATH Sugar transport protein 14 OS=Arabidopsis thaliana GN=STP14 PE=2 SV=2//3.44088e-14  
XLOC\_2051sp|004235|SSRP1\_VICFA FACT complex subunit SSRP1 OS=Vicia faba GN=SSRP1 PE=2 SV=1//2.56811e-31  
XLOC\_2051sp|P47082|AVT1\_YEAST Vacuolar amino acid transporter 1 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=AV  
XLOC\_2051sp|Q93Z27|CML45\_ARATH Probable calcium-binding protein CML45 OS=Arabidopsis thaliana GN=CML45 PE=1 SV=1//2.35119e-31  
XLOC\_2051-//-  
XLOC\_2051sp|Q9SGA8|U83A1\_ARATH UDP-glycosyltransferase 83A1 OS=Arabidopsis thaliana GN=UGT83A1 PE=2 SV=1//7.77322e-135  
XLOC\_2052sp|Q5R4F4|SC31A\_PONAB Protein transport protein Sec31A OS=Pongo abelii GN=SEC31A PE=2 SV=1//2.5651e-09  
XLOC\_2052-//-  
XLOC\_2052sp|Q10422|YDC1\_SCHPO Uncharacterized RNA-binding protein C25G10.01 OS=Schizosaccharomyces pombe (strain 972 / ATCC 24  
XLOC\_2052sp|Q94JU3|CSN7\_ARATH COP9 signalosome complex subunit 7 OS=Arabidopsis thaliana GN=CSN7 PE=1 SV=1//6.40657e-99  
XLOC\_2052-//-  
XLOC\_2052-//-  
XLOC\_2052sp|AOJP85|CNOT1\_XENTR CCR4-NOT transcription complex subunit 1 OS=Xenopus tropicalis GN=cnot1 PE=2 SV=1//2.91458e-20  
XLOC\_2052sp|Q8GZ38|UNE10\_ARATH Transcription factor UNE10 OS=Arabidopsis thaliana GN=UNE10 PE=2 SV=1//3.63985e-99  
XLOC\_2052-//-  
XLOC\_2052sp|G5EFL0|GLD4\_CAEEL Poly(A) RNA polymerase gld-4 OS=Caenorhabditis elegans GN=gld-4 PE=1 SV=1//3.12067e-07  
XLOC\_2053sp|Q9SXD5|GSXL3\_ARATH Flavin-containing monooxygenase FMO GS-OX-like 3 OS=Arabidopsis thaliana GN=At1g62620 PE=2 SV=2  
XLOC\_2053-//-  
XLOC\_2053-//-  
XLOC\_2053sp|Q9LPC5|BIG3\_ARATH Brefeldin A-inhibited guanine nucleotide-exchange protein 3 OS=Arabidopsis thaliana GN=BIG3 PE=1  
XLOC\_2053sp|Q50EK3|C04C1\_PINTA Cytochrome P450 704C1 OS=Pinus taeda GN=CYP704C1 PE=2 SV=1//2.96355e-09  
XLOC\_2053sp|P93733|PLDB1\_ARATH Phospholipase D beta 1 OS=Arabidopsis thaliana GN=PLDBETA1 PE=2 SV=4//1.38808e-153  
XLOC\_2053sp|P93733|PLDB1\_ARATH Phospholipase D beta 1 OS=Arabidopsis thaliana GN=PLDBETA1 PE=2 SV=4//6.86514e-116  
XLOC\_2053sp|AOMDQ1|URM11\_ARATH Ubiquitin-related modifier 1 homolog 1 OS=Arabidopsis thaliana GN=URM1-1 PE=3 SV=2//1.09554e-11  
XLOC\_2053-//-  
XLOC\_2053sp|P45432|CSN1\_ARATH COP9 signalosome complex subunit 1 OS=Arabidopsis thaliana GN=CSN1 PE=1 SV=2//9.69043e-97  
XLOC\_2053sp|Q0WV12|ANL2\_ARATH Homeobox-leucine zipper protein ANTHOCYANINLESS 2 OS=Arabidopsis thaliana GN=ANL2 PE=2 SV=1//1.2  
XLOC\_2054sp|B2X050|MNR1\_CAPAN (+)-neomenthol dehydrogenase OS=Capsicum annuum GN=MNR1 PE=1 SV=1//2.25333e-44  
XLOC\_2054sp|P29675|SF3\_HELAN Pollen-specific protein SF3 OS=Helianthus annuus GN=SF3 PE=2 SV=1//8.85758e-09  
XLOC\_2056sp|Q93ZR1|ELP3\_ARATH Elongator complex protein 3 OS=Arabidopsis thaliana GN=HAG3 PE=1 SV=1//0  
XLOC\_2056sp|Q3TZ87|MARTH9\_MOUSE E3 ubiquitin-protein ligase MARCH9 OS=Mus musculus GN=March9 PE=2 SV=1//5.67145e-07  
XLOC\_2057-//-

XLOC\_2058sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.45503e-16  
XLOC\_2058sp|P18549|CEFD\_STRC2 Isopenicillin N epimerase OS=Streptomyces clavuligerus (strain ATCC 27064 / DSM 738 / JCM 4710 /  
XLOC\_2058sp|Q9S6Z8|TPK5\_ARATH Two-pore potassium channel 5 OS=Arabidopsis thaliana GN=TPK5 PE=1 SV=1//4.43246e-144  
XLOC\_2059-/-  
XLOC\_2059sp|Q9FZ29|MAN1\_ARATH Mannan endo-1,4-beta-mannosidase 1 OS=Arabidopsis thaliana GN=MAN1 PE=2 SV=1//2.21269e-94  
XLOC\_2059sp|P81391|MYB05\_ANTMA Myb-related protein 305 OS=Antirrhinum majus GN=MYB305 PE=2 SV=1//5.66365e-22  
XLOC\_2059sp|Q94A16|CP21C\_ARATH Peptidyl-prolyl cis-trans isomerase CYP21-3, mitochondrial OS=Arabidopsis thaliana GN=CYP21-3 P  
XLOC\_2060sp|Q9C7F5|NTF2\_ARATH Nuclear transport factor 2 OS=Arabidopsis thaliana GN=NTF2 PE=2 SV=1//7.17821e-24  
XLOC\_2061sp|P11369|POL2\_MOUSE Retrovirus-related Pol polyprotein LINE-1 OS=Mus musculus GN=Pol PE=1 SV=2//5.62931e-37  
XLOC\_2062-/-  
XLOC\_2063-/-  
XLOC\_2066sp|Q9C0R2|RTF22\_SCHPO Retrotransposable element Tf2 155 kDa protein type 2 OS=Schizosaccharomyces pombe (strain 972 /  
XLOC\_2066sp|Q84P52|GATP3\_SOLLC Gamma aminobutyrate transaminase 3, chloroplastic OS=Solanum lycopersicum GN=GABA-TP3 PE=1 SV=1  
XLOC\_2071sp|Q94K01|DBR1\_ARATH Lariat debranching enzyme OS=Arabidopsis thaliana GN=DBR1 PE=2 SV=1//6.47005e-16  
XLOC\_2071sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//8.36233e-69  
XLOC\_2073-/-  
XLOC\_2076sp|Q9LVQ8|P2C80\_ARATH Probable protein phosphatase 2C 80 OS=Arabidopsis thaliana GN=At5g66720 PE=2 SV=1//3.29044e-51  
XLOC\_2079sp|Q8S4P6|EZ1\_MAIZE Histone-lysine N-methyltransferase EZ1 OS=Zea mays GN=EZ1 PE=2 SV=1//2.802e-20  
XLOC\_2082sp|Q0J3L4|GRS10\_ORYSJ Monothiol glutaredoxin-S10 OS>Oryza sativa subsp. japonica GN=GRXS10 PE=2 SV=2//1.68273e-11  
XLOC\_2084-/-  
XLOC\_2084sp|Q75LR7|SAPK1\_ORYSJ Serine/threonine-protein kinase SAPK1 OS>Oryza sativa subsp. japonica GN=SAPK1 PE=1 SV=1//5.191  
XLOC\_2087sp|Q9LIH7|ZDHC7\_ARATH Probable S-acyltransferase At3g18620 OS=Arabidopsis thaliana GN=At3g18620 PE=2 SV=1//1.97285e-1  
XLOC\_2088sp|Q8GX29|SKI25\_ARATH F-box/kelch-repeat protein SKIP25 OS=Arabidopsis thaliana GN=SKIP25 PE=1 SV=1//1.78254e-88  
XLOC\_2088sp|O22808|LYK5\_ARATH Protein LYK5 OS=Arabidopsis thaliana GN=LYK5 PE=1 SV=1//1.46783e-07  
XLOC\_2090sp|Q9ZNT1|NB5R1\_ARATH NADH--cytochrome b5 reductase 1 OS=Arabidopsis thaliana GN=CBR1 PE=1 SV=1//5.64872e-15  
XLOC\_2091-/-  
XLOC\_2094-/-  
XLOC\_2095sp|Q39237|TGA1\_ARATH Transcription factor TGA1 OS=Arabidopsis thaliana GN=TGA1 PE=1 SV=2//6.67412e-80  
XLOC\_2095sp|POC605|KGP1\_MOUSE cGMP-dependent protein kinase 1 OS=Mus musculus GN=Prkg1 PE=1 SV=1//3.09184e-08  
XLOC\_2095sp|Q0WMJ8|SIPL4\_ARATH Signal peptide peptidase-like 4 OS=Arabidopsis thaliana GN=SPPL4 PE=2 SV=1//5.04256e-17  
XLOC\_2097-/-  
XLOC\_2098sp|Q2R8Z5|ADH1\_ORYSJ Alcohol dehydrogenase 1 OS>Oryza sativa subsp. japonica GN=ADH1 PE=2 SV=2//4.34473e-117  
XLOC\_2098sp|Q94502|GANAB\_DICDI Neutral alpha-glucosidase AB OS=Dictyostelium discoideum GN=modA PE=3 SV=1//1.92054e-43  
XLOC\_2099-/-  
XLOC\_2099-/-

XLOC\_2099sp|Q03200|LIRP1\_ORYSJ Light-regulated protein OS=*Oryza sativa* subsp. *japonica* GN=LIR1 PE=2 SV=1//6.66745e-20  
XLOC\_2099-//-  
XLOC\_2099sp|Q9CX11|UTP23\_MOUSE rRNA-processing protein UTP23 homolog OS=*Mus musculus* GN=Utp23 PE=2 SV=1//9.57413e-26  
XLOC\_2099sp|B2RXR6|ANR44\_MOUSE Serine/threonine-protein phosphatase 6 regulatory ankyrin repeat subunit B OS=*Mus musculus* GN=A  
XLOC\_2099sp|P57758|CTNS\_ARATH Cystinosin homolog OS=*Arabidopsis thaliana* GN=At5g40670 PE=2 SV=1//5.51639e-35  
XLOC\_2099-//-  
XLOC\_2100sp|Q9FL12|DEGP9\_ARATH Protease Do-like 9 OS=*Arabidopsis thaliana* GN=DEGP9 PE=2 SV=1//3.96958e-178  
XLOC\_2100sp|P29136|MEP1\_SOYBN Metalloendoprotease 1 OS=*Glycine max* PE=1 SV=2//5.98846e-75  
XLOC\_2100sp|P92958|KIN11\_ARATH SNF1-related protein kinase catalytic subunit alpha KIN11 OS=*Arabidopsis thaliana* GN=KIN11 PE=1  
XLOC\_2101sp|Q8RY89|PI5K8\_ARATH Phosphatidylinositol 4-phosphate 5-kinase 8 OS=*Arabidopsis thaliana* GN=PIP5K8 PE=2 SV=1//6.1768  
XLOC\_2101-//-  
XLOC\_2101sp|Q5XF59|HIBC4\_ARATH 3-hydroxyisobutyryl-CoA hydrolase-like protein 1, mitochondrial OS=*Arabidopsis thaliana* GN=At3g  
XLOC\_2101sp|Q7XT42|SPL7\_ORYSJ Squamosa promoter-binding-like protein 7 OS=*Oryza sativa* subsp. *japonica* GN=SPL7 PE=2 SV=2//1.34  
XLOC\_2101-//-  
XLOC\_2101sp|O22152|YAB1\_ARATH Axial regulator YABBY 1 OS=*Arabidopsis thaliana* GN=YAB1 PE=1 SV=1//3.56834e-43  
XLOC\_2102-//-  
XLOC\_2102sp|Q50EK3|C04C1\_PINTA Cytochrome P450 704C1 OS=*Pinus taeda* GN=CYP704C1 PE=2 SV=1//6.64489e-09  
XLOC\_2102-//-  
XLOC\_2102-//-  
XLOC\_2102-//-  
XLOC\_2102-//-  
XLOC\_2102sp|O64647|TCP9\_ARATH Transcription factor TCP9 OS=*Arabidopsis thaliana* GN=TCP9 PE=2 SV=1//4.14162e-68  
XLOC\_2103sp|Q6DW75|DGDG2\_SOYBN Digalactosyldiacylglycerol synthase 2, chloroplastic OS=*Glycine max* GN=DGD2 PE=2 SV=1//4.3066e-  
XLOC\_2103sp|Q6H5X0|RIP2\_ORYSJ Putative ripening-related protein 2 OS=*Oryza sativa* subsp. *japonica* GN=Os02g0637000 PE=3 SV=1//5  
XLOC\_2103-//-  
XLOC\_2103-//-  
XLOC\_2103sp|P52855|RLA1\_MAIZE 60S acidic ribosomal protein P1 OS=*Zea mays* GN=RPP1A PE=1 SV=1//3.24025e-11  
XLOC\_2103-//-  
XLOC\_2103sp|Q9SIC9|PP178\_ARATH Pentatricopeptide repeat-containing protein At2g31400, chloroplastic OS=*Arabidopsis thaliana* GN  
XLOC\_2103sp|O64747|WRK35\_ARATH Probable WRKY transcription factor 35 OS=*Arabidopsis thaliana* GN=WRKY35 PE=2 SV=1//5.56493e-31  
XLOC\_2103-//-  
XLOC\_2103sp|P93295|M310\_ARATH Uncharacterized mitochondrial protein AtMg00310 OS=*Arabidopsis thaliana* GN=AtMg00310 PE=4 SV=1//  
XLOC\_2110sp|Q8L735|ISOA2\_ARATH Isoamylase 2, chloroplastic OS=*Arabidopsis thaliana* GN=ISA2 PE=1 SV=2//0  
XLOC\_2112sp|Q3SWX2|ACOT9\_BOVIN Acyl-coenzyme A thioesterase 9, mitochondrial OS=*Bos taurus* GN=ACOT9 PE=2 SV=1//1.0783e-35  
XLOC\_2113sp|Q09020|PR4\_PHAVU Wound-induced basic protein OS=*Phaseolus vulgaris* GN=PR4 PE=2 SV=1//6.71167e-22

XLOC\_2116sp|Q8W1X2|PDXK\_ARATH Pyridoxal kinase OS=Arabidopsis thaliana GN=PK PE=1 SV=2//6.8751e-32  
XLOC\_2117sp|P23919|KTHY\_HUMAN Thymidylate kinase OS=Homo sapiens GN=DTYMK PE=1 SV=4//4.52699e-54  
XLOC\_2123-//  
XLOC\_2124-//  
XLOC\_2124sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.05  
XLOC\_2124-//  
XLOC\_2125-//  
XLOC\_2125-//  
XLOC\_2125-//  
XLOC\_2128-//  
XLOC\_2128sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.013  
XLOC\_2129sp|Q94B08|GCP1\_ARATH Germination-specific cysteine protease 1 OS=Arabidopsis thaliana GN=GCP1 PE=2 SV=2//2.41904e-56  
XLOC\_2129-//  
XLOC\_2130-//  
XLOC\_2132sp|Q5RC69|DCTD\_PONAB Deoxycytidylate deaminase OS=Pongo abelii GN=DCTD PE=2 SV=1//2.65944e-60  
XLOC\_2134-//  
XLOC\_2134sp|F4HVJ3|POD1\_ARATH Protein POLLEN DEFECTIVE IN GUIDANCE 1 OS=Arabidopsis thaliana GN=POD1 PE=1 SV=1//1.86707e-63  
XLOC\_2134-//  
XLOC\_2135sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.49  
XLOC\_2136sp|Q05654|RTF21\_SCHPO Retrotransposable element Tf2 155 kDa protein type 1 OS=Schizosaccharomyces pombe (strain 972 /  
XLOC\_2137-//  
XLOC\_2138sp|P46440|GSTF2\_TOBAC Glutathione S-transferase APIC OS=Nicotiana tabacum GN=APIC PE=2 SV=1//2.48839e-18  
XLOC\_2139sp|Q9FN09|NPY3\_ARATH BTB/POZ domain-containing protein NPY3 OS=Arabidopsis thaliana GN=NPY3 PE=2 SV=1//6.68925e-13  
XLOC\_2142sp|Q5RET6|T184C\_PONAB Transmembrane protein 184C OS=Pongo abelii GN=TMEM184C PE=2 SV=1//1.32677e-21  
XLOC\_2144-//  
XLOC\_2151-//  
XLOC\_2153sp|Q42551|SCE1\_ARATH SUMO-conjugating enzyme SCE1 OS=Arabidopsis thaliana GN=SCE1 PE=1 SV=1//8.22903e-06  
XLOC\_2154sp|Q9FJP9|DHSB3\_ARATH Succinate dehydrogenase [ubiquinone] iron-sulfur subunit 3, mitochondrial OS=Arabidopsis thalia  
XLOC\_2155sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.73268e-39  
XLOC\_2156sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.12  
XLOC\_2156-//  
XLOC\_2158-//  
XLOC\_2161sp|Q9ASX5|Y5520\_ARATH Uncharacterized aarF domain-containing protein kinase At5g05200, chloroplastic OS=Arabidopsis t  
XLOC\_2161sp|F4IZC4|BASS4\_ARATH Probable sodium/metabolite cotransporter BASS4, chloroplastic OS=Arabidopsis thaliana GN=BASS4  
XLOC\_2164-//  
XLOC\_2164sp|081062|SIP\_ARATH Signal peptide peptidase OS=Arabidopsis thaliana GN=SPP PE=2 SV=1//5.8481e-12



XLOC\_2165-/-  
XLOC\_2165sp|Q8L5Y5|ZDH17\_ARATH Probable S-acyltransferase At4g15080 OS=Arabidopsis thaliana GN=At4g15080 PE=1 SV=1//0  
XLOC\_2166-/-  
XLOC\_2167-/-  
XLOC\_2168sp|Q9LZ16|NDS5B\_ARATH NADH dehydrogenase [ubiquinone] iron-sulfur protein 5-B OS=Arabidopsis thaliana GN=At3g62790 PE  
XLOC\_2168sp|Q9SRX9|BAH1\_ARATH E3 ubiquitin-protein ligase BAH1 OS=Arabidopsis thaliana GN=BAH1 PE=1 SV=1//3.11638e-123  
XLOC\_2169-/-  
XLOC\_2171sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.26  
XLOC\_2174sp|P08548|LIN1\_NYCCO LINE-1 reverse transcriptase homolog OS=Nycticebus coucang PE=1 SV=1//3.6051e-17  
XLOC\_2174sp|Q6Z1D5|ATG8C\_ORYSJ Autophagy-related protein 8C OS=Oryza sativa subsp. japonica GN=ATG8C PE=2 SV=1//1.72857e-08  
XLOC\_2175sp|Q6R8G7|PH013\_ARATH Phosphate transporter PH01 homolog 3 OS=Arabidopsis thaliana GN=PH01;H3 PE=2 SV=2//0  
XLOC\_2176-/-  
XLOC\_2177sp|Q93ZF5|PH011\_ARATH Phosphate transporter PH01 homolog 1 OS=Arabidopsis thaliana GN=PH01-H1 PE=2 SV=1//0  
XLOC\_2178sp|Q43472|GRP\_HORVU Glycine-rich RNA-binding protein blt801 OS=Hordeum vulgare GN=blt801 PE=1 SV=1//1.48164e-22  
XLOC\_2180sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.20  
XLOC\_2181-/-  
XLOC\_2182sp|O95677|EYA4\_HUMAN Eyes absent homolog 4 OS=Homo sapiens GN=EYA4 PE=1 SV=2//5.57386e-41  
XLOC\_2182-/-  
XLOC\_2183sp|Q9ZQG4|U73B5\_ARATH UDP-glycosyltransferase 73B5 OS=Arabidopsis thaliana GN=UGT73B5 PE=2 SV=1//6.26288e-42  
XLOC\_2183sp|P03876|AI2M\_YEAST Putative COX1/OXI3 intron 2 protein OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=  
XLOC\_2184sp|Q07G10|ALKB8\_XENTR Alkylated DNA repair protein alkB homolog 8 OS=Xenopus tropicalis GN=alkbh8 PE=2 SV=2//6.93856e  
XLOC\_2184-/-  
XLOC\_2184-/-  
XLOC\_2186sp|Q69IL4|RF2A\_ORYSJ Transcription factor RF2a OS=Oryza sativa subsp. japonica GN=RF2a PE=1 SV=1//1.06147e-33  
XLOC\_2187sp|Q9FPW6|POB1\_ARATH BTB/POZ domain-containing protein POB1 OS=Arabidopsis thaliana GN=POB1 PE=2 SV=2//4.57919e-16  
XLOC\_2190sp|Q14974|IMB1\_HUMAN Importin subunit beta-1 OS=Homo sapiens GN=KPNB1 PE=1 SV=2//9.68868e-61  
XLOC\_2192sp|Q86V88|MGDP1\_HUMAN Magnesium-dependent phosphatase 1 OS=Homo sapiens GN=MDP1 PE=1 SV=1//9.99249e-31  
XLOC\_2194-/-  
XLOC\_2194-/-  
XLOC\_2196sp|Q680H3|PP170\_ARATH Pentatricopeptide repeat-containing protein At2g25580 OS=Arabidopsis thaliana GN=PCMP-H75 PE=2  
XLOC\_2197sp|Q5Z627|EF1G3\_ORYSJ Elongation factor 1-gamma 3 OS=Oryza sativa subsp. japonica GN=Os06g0571400 PE=2 SV=1//8.31013e  
XLOC\_2200sp|P84752|PERA\_ALOVR Peroxidase A (Fragments) OS=Aloe vera PE=1 SV=1//3.94775e-08  
XLOC\_2201-/-  
XLOC\_2202-/-  
XLOC\_2204sp|O22941|PXM16\_ARATH Zinc-metalloproteinase, peroxisomal OS=Arabidopsis thaliana GN=PXM16 PE=2 SV=1//5.52059e-35

XLOC\_2204-/-  
XLOC\_2207sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//7.00  
XLOC\_2207sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//3.96  
XLOC\_2209sp|Q76E23|IF4G\_ARATH Eukaryotic translation initiation factor 4G OS=Arabidopsis thaliana GN=EIF4G PE=1 SV=2//1.94142e  
XLOC\_2210-/-  
XLOC\_2210sp|O80739|POT12\_ARATH Putative potassium transporter 12 OS=Arabidopsis thaliana GN=POT12 PE=1 SV=2//1.3399e-34  
XLOC\_2210sp|Q96361|ARF1\_BRARP ADP-ribosylation factor 1 OS=Brassica rapa subsp. pekinensis GN=ARF1 PE=2 SV=3//5.83193e-12  
XLOC\_2211-/-  
XLOC\_2213-/-  
XLOC\_2213-/-  
XLOC\_2213-/-  
XLOC\_2215sp|Q9M886|LBD41\_ARATH LOB domain-containing protein 41 OS=Arabidopsis thaliana GN=LBD41 PE=2 SV=1//3.38103e-94  
XLOC\_2216-/-  
XLOC\_2216sp|Q0DJA3|DRB3\_ORYSJ Double-stranded RNA-binding protein 3 OS>Oryza sativa subsp. japonica GN=DRB3 PE=2 SV=1//4.02776  
XLOC\_2217sp|P33079|A10A5\_SOYBN Auxin-induced protein 10A5 OS=Glycine max PE=2 SV=1//1.19751e-11  
XLOC\_2217-/-  
XLOC\_2217sp|P92973|CCA1\_ARATH Protein CCA1 OS=Arabidopsis thaliana GN=CCA1 PE=1 SV=1//1.28968e-22  
XLOC\_2218sp|O34598|GUAD\_BACSU Guanine deaminase OS=Bacillus subtilis (strain 168) GN=guaD PE=1 SV=1//2.37189e-07  
XLOC\_2221sp|Q9ZRU9|LSM4\_FAGSY Probable U6 snRNA-associated Sm-like protein LSm4 OS=Fagus sylvatica GN=LSM4 PE=2 SV=1//1.57891e  
XLOC\_2221sp|O81062|SIP\_ARATH Signal peptide peptidase OS=Arabidopsis thaliana GN=SPP PE=2 SV=1//1.00241e-12  
XLOC\_2223-/-  
XLOC\_2227sp|O67716|DHAS\_AQUAE Aspartate-semialdehyde dehydrogenase OS=Aquifex aeolicus (strain VF5) GN=asd PE=3 SV=1//2.93995e  
XLOC\_2229sp|Q8H157|PTR19\_ARATH Nitrate transporter 1.2 OS=Arabidopsis thaliana GN=NRT1.2 PE=1 SV=1//3.90833e-14  
XLOC\_2229sp|Q9LS01|AOC3\_ARATH Allene oxide cyclase 3, chloroplastic OS=Arabidopsis thaliana GN=AOC3 PE=2 SV=1//8.78019e-82  
XLOC\_2231sp|Q96361|ARF1\_BRARP ADP-ribosylation factor 1 OS=Brassica rapa subsp. pekinensis GN=ARF1 PE=2 SV=3//2.78944e-06  
XLOC\_2231-/-  
XLOC\_2231sp|F1NTD6|ASCC3\_CHICK Activating signal integrator 1 complex subunit 3 OS=Gallus gallus GN=ascc3 PE=3 SV=2//3.11155  
XLOC\_2232-/-  
XLOC\_2232sp|Q0WWT7|STR11\_ARATH Rhodanese-like domain-containing protein 11, chloroplastic OS=Arabidopsis thaliana GN=STR11 PE=  
XLOC\_2232sp|O65039|CYSEP\_RICCO Vignain OS=Ricinus communis GN=CYSEP PE=1 SV=1//2.38321e-58  
XLOC\_2233sp|Q2V6J9|UFOG7\_FRAAN UDP-glucose flavonoid 3-O-glucosyltransferase 7 OS=Fragaria ananassa GN=GT7 PE=1 SV=1//2.00095e  
XLOC\_2236sp|Q5F4C4|SHOC2\_CHICK Leucine-rich repeat protein SHOC-2 OS=Gallus gallus GN=SHOC2 PE=2 SV=1//3.81238e-11  
XLOC\_2236sp|Q9UTE6|MAK16\_SCHPO Protein mak16 OS=Schizosaccharomyces pombe (strain 972 / ATCC 24843) GN=mak16 PE=2 SV=1//9.9845  
XLOC\_2238sp|B8JMH0|CAF17\_DANRE Putative transferase CAF17 homolog, mitochondrial OS=Danio rerio GN=iba57 PE=3 SV=1//3.23313e-4  
XLOC\_2238sp|Q55720|YC49L\_SYNY3 Ycf49-like protein OS=Synechocystis sp. (strain PCC 6803 / Kazusa) GN=s110608 PE=3 SV=1//5.5324

XLOC\_2239-//  
XLOC\_2240sp|Q9FGM1|PYL8\_ARATH Abscisic acid receptor PYL8 OS=Arabidopsis thaliana GN=PYL8 PE=1 SV=1//1.97761e-97  
XLOC\_2241sp|Q339W7|LHP1\_ORYSJ Probable chromo domain-containing protein LHP1 OS=Oryza sativa subsp. japonica GN=LHP1 PE=3 SV=1  
XLOC\_2241-//  
XLOC\_2241-//  
XLOC\_2243sp|A2SY66|VICHY\_VICSN Vicianin hydrolase (Fragment) OS=Vicia sativa subsp. nigra PE=1 SV=1//1.99483e-22  
XLOC\_2244-//  
XLOC\_2248sp|F4I933|STR8\_ARATH Rhodanese-like domain-containing protein 8, chloroplastic OS=Arabidopsis thaliana GN=STR8 PE=2 S  
XLOC\_2248-//  
XLOC\_2248sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//1.44435e-19  
XLOC\_2250-//  
XLOC\_2250sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//1.12206e-10  
XLOC\_2253-//  
XLOC\_2254sp|O82318|Y2579\_ARATH Probably inactive leucine-rich repeat receptor-like protein kinase At2g25790 OS=Arabidopsis tha  
XLOC\_2254sp|P93293|M300\_ARATH Uncharacterized mitochondrial protein AtMg00300 OS=Arabidopsis thaliana GN=AtMg00300 PE=4 SV=1//  
XLOC\_2259sp|Q5R9C7|SC11A\_PONAB Signal peptidase complex catalytic subunit SEC11A OS=Pongo abelii GN=SEC11A PE=2 SV=1//3.2712e-  
XLOC\_2263sp|Q3ZBU9|UBXN4\_BOVIN UBX domain-containing protein 4 OS=Bos taurus GN=UBXN4 PE=2 SV=2//3.26873e-08  
XLOC\_2263sp|Q54ZW0|PHG1B\_DICDI Putative phagocytic receptor 1b OS=Dictyostelium discoideum GN=phg1b PE=2 SV=1//2.72004e-13  
XLOC\_2264-//  
XLOC\_2264-//  
XLOC\_2264sp|Q550W1|CAPTC\_DICDI Uncharacterized CDP-alcohol phosphatidyltransferase class-I family protein 3 OS=Dictyostelium d  
XLOC\_2264sp|Q9LFS4|NIK1\_ARATH Protein NSP-INTERACTING KINASE 1 OS=Arabidopsis thaliana GN=NIK1 PE=1 SV=1//4.9471e-50  
XLOC\_2264sp|Q9CAA4|BIM2\_ARATH Transcription factor BIM2 OS=Arabidopsis thaliana GN=BIM2 PE=1 SV=1//9.67355e-18  
XLOC\_2264sp|Q5CZL1|GDAP2\_XENTR Ganglioside-induced differentiation-associated protein 2 OS=Xenopus tropicalis PE=2 SV=1//2.293  
XLOC\_2264sp|Q6R8G7|PHO13\_ARATH Phosphate transporter PHO1 homolog 3 OS=Arabidopsis thaliana GN=PHO1;H3 PE=2 SV=2//4.08983e-12  
XLOC\_2266-//  
XLOC\_2268-//  
XLOC\_2268sp|Q8L736|SKI11\_ARATH F-box/kelch-repeat protein SKIP11 OS=Arabidopsis thaliana GN=SKIP11 PE=1 SV=2//2.36796e-172  
XLOC\_2274sp|Q54P70|Y4757\_DICDI OTU domain-containing protein DDB\_G0284757 OS=Dictyostelium discoideum GN=DDB\_G0284757 PE=4 SV=  
XLOC\_2275-//  
XLOC\_2277sp|Q9LN77|P2A12\_ARATH F-box protein PP2-A12 OS=Arabidopsis thaliana GN=P2A12 PE=2 SV=1//3.35512e-84  
XLOC\_2279sp|Q9T096|YIPL6\_ARATH Protein yippee-like At4g27745 OS=Arabidopsis thaliana GN=At4g27745 PE=3 SV=2//3.02372e-59  
XLOC\_2280sp|Q9STN8|SINA4\_ARATH E3 ubiquitin-protein ligase SINAT4 OS=Arabidopsis thaliana GN=SINAT4 PE=2 SV=1//0  
XLOC\_2280sp|Q6PBM8|RBM18\_DANRE Probable RNA-binding protein 18 OS=Danio rerio GN=rbm18 PE=2 SV=1//1.78507e-12  
XLOC\_2281sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.59968e-29

XLOC\_2285-/-  
XLOC\_2288sp|Q9SB51|UBP16\_ARATH Ubiquitin carboxyl-terminal hydrolase 16 OS=Arabidopsis thaliana GN=UBP16 PE=2 SV=1//7.84308e-3  
XLOC\_2289sp|Q55CU8|RSC5\_DICDI Random slug protein 5 OS=Dictyostelium discoideum GN=rsc5 PE=2 SV=1//4.81514e-08  
XLOC\_2289sp|Q8VYI9|NLTL5\_ARATH Non-specific lipid-transfer protein-like protein At5g64080 OS=Arabidopsis thaliana GN=At5g64080  
XLOC\_2289-/-  
XLOC\_2289-/-  
XLOC\_2289-/-  
XLOC\_2289-/-  
XLOC\_2289sp|Q71H73|H33\_VITVI Histone H3.3 OS=Vitis vinifera PE=2 SV=3//2.88196e-86  
XLOC\_2289sp|A2YNT8|SAPK2\_ORYSI Serine/threonine-protein kinase SAPK2 OS=Oryza sativa subsp. indica GN=SAPK2 PE=2 SV=2//5.0895e  
XLOC\_2289sp|Q9ZWJ3|U85A2\_ARATH UDP-glycosyltransferase 85A2 OS=Arabidopsis thaliana GN=UGT85A2 PE=2 SV=1//0  
XLOC\_2290sp|Q766C2|NEP2\_NEPGR Aspartic proteinase nepenthesin-2 OS=Nepenthes gracilis GN=nep2 PE=1 SV=1//6.95818e-26  
XLOC\_2292sp|Q56YP2|PI5K1\_ARATH Phosphatidylinositol 4-phosphate 5-kinase 1 OS=Arabidopsis thaliana GN=PIP5K1 PE=1 SV=1//8.0824  
XLOC\_2294sp|Q9FFN2|GLYT3\_ARATH Probable glycosyltransferase At5g03795 OS=Arabidopsis thaliana GN=At5g03795 PE=3 SV=2//6.40781e  
XLOC\_2294sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//6.96  
XLOC\_2295sp|Q9STG6|DUT\_ARATH Deoxyuridine 5'-triphosphate nucleotidohydrolase OS=Arabidopsis thaliana GN=DUT PE=1 SV=1//3  
XLOC\_2296-/-  
XLOC\_2296sp|Q8L8B8|LOG3\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG3 OS=Arabidopsis thaliana GN=LC  
XLOC\_2296-/-  
XLOC\_2299-/-  
XLOC\_2302-/-  
XLOC\_2303sp|Q9BTZ2|DHRS4\_HUMAN Dehydrogenase/reductase SDR family member 4 OS=Homo sapiens GN=DHRS4 PE=1 SV=3//1.06923e-07  
XLOC\_2303sp|P54260|GCST\_SOLTU Aminomethyltransferase, mitochondrial OS=Solanum tuberosum GN=GDCST PE=2 SV=1//0  
XLOC\_2303sp|P12301|PSBQ\_SPIOL Oxygen-evolving enhancer protein 3, chloroplastic OS=Spinacia oleracea GN=PSBQ PE=1 SV=1//7.7721  
XLOC\_2304sp|Q1RHN1|RL14\_RICBR 50S ribosomal protein L14 OS=Rickettsia bellii (strain RML369-C) GN=rp1N PE=3 SV=1//5.30152e-32  
XLOC\_2304sp|Q94F00|IMPL1\_ARATH Phosphatase IMPL1, chloroplastic OS=Arabidopsis thaliana GN=IMPL1 PE=1 SV=2//4.42199e-39  
XLOC\_2305sp|Q9SYG1|HS174\_ARATH 17.4 kDa class III heat shock protein OS=Arabidopsis thaliana GN=HSP17.4B PE=2 SV=1//4.87275e-3  
XLOC\_2305sp|Q93ZH2|NFYA3\_ARATH Nuclear transcription factor Y subunit A-3 OS=Arabidopsis thaliana GN=NFYA3 PE=2 SV=2//1.90073e  
XLOC\_2306-/-  
XLOC\_2308sp|Q53YF3|SPC3B\_ARATH Signal peptidase complex subunit 3B OS=Arabidopsis thaliana GN=At5g27430 PE=2 SV=1//3.64863e-96  
XLOC\_2309-/-  
XLOC\_2309sp|Q6VAF7|TBB5\_GOSHI Tubulin beta-5 chain OS=Gossypium hirsutum PE=2 SV=1//0  
XLOC\_2310-/-  
XLOC\_2312sp|F4I171|MD15A\_ARATH Mediator of RNA polymerase II transcription subunit 15a OS=Arabidopsis thaliana GN=MED15A PE=1  
XLOC\_2312sp|Q9SSQ4|FRS6\_ARATH Protein FAR1-RELATED SEQUENCE 6 OS=Arabidopsis thaliana GN=FRS6 PE=2 SV=1//0

XLOC\_2315sp|P09189|HSP7C\_PETHY Heat shock cognate 70 kDa protein OS=Petunia hybrida GN=HSP70 PE=2 SV=1//5.99022e-161  
XLOC\_2316sp|Q6NQJ7|FRS4\_ARATH Protein FAR1-RELATED SEQUENCE 4 OS=Arabidopsis thaliana GN=FRS4 PE=2 SV=2//0  
XLOC\_2316sp|Q28BZ1|RBM8A\_XENTR RNA-binding protein 8A OS=Xenopus tropicalis GN=rbm8a PE=2 SV=1//4.3782e-32  
XLOC\_2317sp|Q8LAW2|AFR\_ARATH F-box protein AFR OS=Arabidopsis thaliana GN=AFR PE=1 SV=2//6.26488e-136  
XLOC\_2318-//  
XLOC\_2319sp|P49212|RL37\_SOLLC 60S ribosomal protein L37 (Fragment) OS=Solanum lycopersicum GN=RPL37 PE=3 SV=1//5.60419e-19  
XLOC\_2320sp|Q84KI6|SQD1\_SPIOL UDP-sulfoquinovose synthase, chloroplastic OS=Spinacia oleracea GN=SQD1 PE=1 SV=1//0  
XLOC\_2322sp|Q8RWQ9|ALEUL\_ARATH Thiol protease aleurain-like OS=Arabidopsis thaliana GN=At3g45310 PE=2 SV=1//1.36139e-141  
XLOC\_2324-//  
XLOC\_2326sp|Q5EAR5|TRPT1\_DANRE tRNA 2'&apos;-phosphotransferase 1 OS=Danio rerio GN=trpt1 PE=2 SV=2//2.81323e-17  
XLOC\_2327-//  
XLOC\_2331sp|P35135|UBC4\_SOLLC Ubiquitin-conjugating enzyme E2-17 kDa OS=Solanum lycopersicum PE=2 SV=1//2.0912e-17  
XLOC\_2332sp|Q8LPB4|PSKR1\_DAUCA Phytosulfokine receptor 1 OS=Daucus carota GN=PSKR PE=1 SV=1//4.24168e-10  
XLOC\_2333sp|Q71N54|LCAT4\_ARATH Lecithine-cholesterol acyltransferase-like 4 OS=Arabidopsis thaliana GN=LCAT4 PE=2 SV=1//3.7269  
XLOC\_2333sp|POCH33|UBQ11\_ARATH Polyubiquitin 11 OS=Arabidopsis thaliana GN=UBQ11 PE=1 SV=1//1.25042e-104  
XLOC\_2333sp|POCG71|UBIQ1\_CAEEL Polyubiquitin-A OS=Caenorhabditis elegans GN=ubq-1 PE=3 SV=1//0  
XLOC\_2335-//  
XLOC\_2335sp|Q8L6Y1|UBP14\_ARATH Ubiquitin carboxyl-terminal hydrolase 14 OS=Arabidopsis thaliana GN=UBP14 PE=1 SV=1//3.70706e-1  
XLOC\_2339sp|Q9SYL0|BT3\_ARATH BTB/POZ and TAZ domain-containing protein 3 OS=Arabidopsis thaliana GN=BT3 PE=1 SV=2//2.01288e-21  
XLOC\_2340sp|P92519|M810\_ARATH Uncharacterized mitochondrial protein AtMg00810 OS=Arabidopsis thaliana GN=AtMg00810 PE=4 SV=1//  
XLOC\_2341sp|Q8L6Y1|UBP14\_ARATH Ubiquitin carboxyl-terminal hydrolase 14 OS=Arabidopsis thaliana GN=UBP14 PE=1 SV=1//1.07171e-1  
XLOC\_2342sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.18  
XLOC\_2343-//  
XLOC\_2343sp|Q923G2|RPAB3\_MOUSE DNA-directed RNA polymerases I, II, and III subunit RPABC3 OS=Mus musculus GN=Polr2h PE=2 SV=3/  
XLOC\_2345-//  
XLOC\_2346-//  
XLOC\_2347-//  
XLOC\_2348-//  
XLOC\_2348-//  
XLOC\_2349-//  
XLOC\_2349-//  
XLOC\_2350sp|Q54UU1|TPPC4\_DICDI Trafficking protein particle complex subunit 4 OS=Dictyostelium discoideum GN=trappc4 PE=3 SV=1  
XLOC\_2350sp|Q6R8G7|PH013\_ARATH Phosphate transporter PH01 homolog 3 OS=Arabidopsis thaliana GN=PH01;H3 PE=2 SV=2//3.589e-64  
XLOC\_2352sp|Q940Z2|ARP5\_ARATH Actin-related protein 5 OS=Arabidopsis thaliana GN=ARP5 PE=1 SV=2//1.33874e-62  
XLOC\_2358-//

XLOC\_2361sp|P49636|RL40\_NICSY Ubiquitin-60S ribosomal protein L40 OS=Nicotiana glauca GN=UBICEP52-7 PE=2 SV=2//2.10125e-86  
XLOC\_2361sp|Q9FYR7|SCL8\_ARATH Scarecrow-like protein 8 OS=Arabidopsis thaliana GN=SCL8 PE=2 SV=1//1.49692e-20  
XLOC\_2363-//  
XLOC\_2366-//  
XLOC\_2367sp|O23712|PSA1B\_ARATH Proteasome subunit alpha type-1-B OS=Arabidopsis thaliana GN=PAF2 PE=1 SV=2//3.30822e-158  
XLOC\_2367-//  
XLOC\_2367sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana glauca PE=2 SV=1//1.24  
XLOC\_2367sp|Q8VYI3|ECH2\_ARATH Enoyl-CoA hydratase 2, peroxisomal OS=Arabidopsis thaliana GN=ECH2 PE=1 SV=1//5.69356e-41  
XLOC\_2367sp|Q8LFG1|AMY2\_ARATH Probable alpha-amylase 2 OS=Arabidopsis thaliana GN=AMY2 PE=2 SV=1//6.4506e-17  
XLOC\_2369-//  
XLOC\_2369sp|Q8H103|G6PIP\_ARATH Glucose-6-phosphate isomerase 1, chloroplastic OS=Arabidopsis thaliana GN=PGI1 PE=1 SV=1//8.530  
XLOC\_2369sp|P93009|CUTA\_ARATH Protein CutA, chloroplastic OS=Arabidopsis thaliana GN=CUTA PE=1 SV=1//7.58431e-45  
XLOC\_2369sp|Q8S8F8|GEM\_ARATH GLABRA2 expression modulator OS=Arabidopsis thaliana GN=GEM PE=1 SV=1//1.67695e-79  
XLOC\_2369sp|Q9FZ95|PUP3\_ARATH Purine permease 3 OS=Arabidopsis thaliana GN=PUP3 PE=2 SV=1//9.37933e-24  
XLOC\_2369sp|Q9M0S5|ISOA3\_ARATH Isoamylase 3, chloroplastic OS=Arabidopsis thaliana GN=ISA3 PE=1 SV=2//3.95603e-148  
XLOC\_2369sp|P93343|1433C\_TOBAC 14-3-3-like protein C OS=Nicotiana glauca PE=1 SV=1//1.02789e-17  
XLOC\_2369sp|Q9M9E8|FB92\_ARATH F-box protein At1g78280 OS=Arabidopsis thaliana GN=At1g78280 PE=2 SV=3//5.39729e-52  
XLOC\_2370sp|Q9LME4|P2C09\_ARATH Probable protein phosphatase 2C 9 OS=Arabidopsis thaliana GN=At1g22280 PE=1 SV=1//3.5508e-116  
XLOC\_2370sp|Q93Y91|STP5\_ARATH Sugar transport protein 5 OS=Arabidopsis thaliana GN=STP5 PE=2 SV=1//3.43068e-116  
XLOC\_2370-//  
XLOC\_2370sp|Q6LOS6|DNAJ\_PICTO Chaperone protein DnaJ OS=Microphilus torridus (strain ATCC 700027 / DSM 9790 / JCM 10055 / NBRC  
XLOC\_2372sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.38131e-94  
XLOC\_2372sp|O65819|H2B3\_SOLLC Histone H2B.3 (Fragment) OS=Solanum lycopersicum GN=H2B-3 PE=2 SV=1//5.4018e-23  
XLOC\_2373sp|P46297|RS23\_FRAAN 40S ribosomal protein S23 OS=Fragaria vesca GN=RPS23 PE=2 SV=1//2.15825e-94  
XLOC\_2377-//  
XLOC\_2379sp|Q9SGS2|HMGB9\_ARATH High mobility group B protein 9 OS=Arabidopsis thaliana GN=HMGB9 PE=2 SV=1//2.76947e-117  
XLOC\_2379-//  
XLOC\_2379sp|Q9ASS4|Y5838\_ARATH Probably inactive leucine-rich repeat receptor-like protein kinase At5g48380 OS=Arabidopsis thaliana  
XLOC\_2379sp|O60942|MCE1\_HUMAN mRNA-capping enzyme OS=Homo sapiens GN=RNGTT PE=1 SV=1//4.37458e-08  
XLOC\_2379sp|Q39102|FTSH1\_ARATH ATP-dependent zinc metalloprotease FTSH 1, chloroplastic OS=Arabidopsis thaliana GN=FTSH1 PE=1  
XLOC\_2379sp|Q8LBB7|LOG5\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG5 OS=Arabidopsis thaliana GN=LC  
XLOC\_2381sp|Q8L9A0|RM21\_ARATH 50S ribosomal protein L21, mitochondrial OS=Arabidopsis thaliana GN=RPL21M PE=2 SV=1//5.17166e-1  
XLOC\_2381sp|P93014|RR5\_ARATH 30S ribosomal protein S5, chloroplastic OS=Arabidopsis thaliana GN=rps5 PE=1 SV=1//4.86487e-92  
XLOC\_2382-//  
XLOC\_2386-//

XLOC\_2386sp|Q9LQI7|CIA30\_ARATH Probable complex I intermediate-associated protein 30 OS=Arabidopsis thaliana GN=At1g17350 PE=1  
XLOC\_2386-/-  
XLOC\_2386sp|Q5RD67|S2544\_PONAB Solute carrier family 25 member 44 OS=Pongo abelii GN=SLC25A44 PE=2 SV=2//1.22519e-28  
XLOC\_2390sp|Q2G6X5|EFP\_NOVAD Elongation factor P OS=Novosphingobium aromaticivorans (strain DSM 12444) GN=efp PE=3 SV=1//1.877  
XLOC\_2392-/-  
XLOC\_2393-/-  
XLOC\_2398-/-  
XLOC\_2398sp|Q3S4A7|AHK5\_ARATH Histidine kinase 5 OS=Arabidopsis thaliana GN=AHK5 PE=2 SV=1//4.29445e-28  
XLOC\_2398sp|Q9SZ52|PP344\_ARATH Pentatricopeptide repeat-containing protein At4g31850, chloroplastic OS=Arabidopsis thaliana GN  
XLOC\_2399sp|Q3SZ19|PSMD9\_BOVIN 26S proteasome non-ATPase regulatory subunit 9 OS=Bos taurus GN=PSMD9 PE=1 SV=1//9.00468e-28  
XLOC\_2400sp|Q8VZU9|DERL1\_ARATH Derlin-1 OS=Arabidopsis thaliana GN=DER1 PE=2 SV=1//7.23788e-16  
XLOC\_2404sp|Q8LBH4|SPX1\_ARATH SPX domain-containing protein 1 OS=Arabidopsis thaliana GN=SPX1 PE=2 SV=2//8.20906e-125  
XLOC\_2405-/-  
XLOC\_2405-/-  
XLOC\_2405sp|A6SRX6|MOCOS\_BOTFB Molybdenum cofactor sulfurase OS=Botryotinia fuckeliana (strain B05.10) GN=BC1G\_15280 PE=3 SV=1  
XLOC\_2405-/-  
XLOC\_2406sp|P92519|M810\_ARATH Uncharacterized mitochondrial protein AtMg00810 OS=Arabidopsis thaliana GN=AtMg00810 PE=4 SV=1//  
XLOC\_2406-/-  
XLOC\_2407sp|P10401|POLY\_DROME Retrovirus-related Pol polyprotein from transposon gypsy OS=Drosophila melanogaster GN=pol PE=4  
XLOC\_2415sp|Q2MHE4|HT1\_ARATH Serine/threonine-protein kinase HT1 OS=Arabidopsis thaliana GN=HT1 PE=1 SV=1//4.15952e-58  
XLOC\_2415sp|Q8LB02|DHSB2\_ARATH Succinate dehydrogenase [ubiquinone] iron-sulfur subunit 2, mitochondrial OS=Arabidopsis thaliana  
XLOC\_2415sp|Q7FAH2|G3PC2\_ORYSJ Glyceraldehyde-3-phosphate dehydrogenase 2, cytosolic OS=Oryza sativa subsp. japonica GN=GAPC2  
XLOC\_2416sp|Q9ZUU1|KADC1\_ARATH Probable adenylate kinase 1, chloroplastic OS=Arabidopsis thaliana GN=At2g37250 PE=2 SV=1//3.62  
XLOC\_2416-/-  
XLOC\_2417-/-  
XLOC\_2418sp|Q9ZUU1|KADC1\_ARATH Probable adenylate kinase 1, chloroplastic OS=Arabidopsis thaliana GN=At2g37250 PE=2 SV=1//1.29  
XLOC\_2419sp|Q8LB02|DHSB2\_ARATH Succinate dehydrogenase [ubiquinone] iron-sulfur subunit 2, mitochondrial OS=Arabidopsis thaliana  
XLOC\_2419sp|Q2MHE4|HT1\_ARATH Serine/threonine-protein kinase HT1 OS=Arabidopsis thaliana GN=HT1 PE=1 SV=1//4.48914e-63  
XLOC\_2423-/-  
XLOC\_2423-/-  
XLOC\_2424-/-  
XLOC\_2426-/-  
XLOC\_2426-/-  
XLOC\_2426sp|Q0IQN5|RTOR1\_ORYSJ Regulatory-associated protein of TOR 1 OS=Oryza sativa subsp. japonica GN=RAPTOR1 PE=2 SV=2//1.  
XLOC\_2426sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.64

XLOC\_2427-/-  
XLOC\_2428sp|P95245|PHLC\_MYCTU Phospholipase C 3 OS=Mycobacterium tuberculosis GN=plcC PE=3 SV=2//1.53269e-19  
XLOC\_2429sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.00  
XLOC\_2430-/-  
XLOC\_2430-/-  
XLOC\_2432sp|Q9ST27|PHOT2\_ORYSJ Phototropin-2 OS=Oryza sativa subsp. japonica GN=PHOT2 PE=1 SV=1//1.89307e-13  
XLOC\_2434sp|O48916|FAH1\_ARATH Fatty acid 2-hydroxylase 1 OS=Arabidopsis thaliana GN=FAH1 PE=1 SV=1//1.13696e-39  
XLOC\_2434sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.93  
XLOC\_2434sp|Q9SVG4|RETOL\_ARATH Reticuline oxidase-like protein OS=Arabidopsis thaliana GN=At4g20830 PE=1 SV=2//0  
XLOC\_2434sp|Q9FWQ5|HAC12\_ARATH Histone acetyltransferase HAC12 OS=Arabidopsis thaliana GN=HAC12 PE=2 SV=2//1.23108e-15  
XLOC\_2435sp|Q0V7T5|Y1864\_ARATH Probable receptor-like protein kinase Atlg80640 OS=Arabidopsis thaliana GN=Atlg80640 PE=2 SV=1/  
XLOC\_2435sp|O82146|BAMS2\_PANGI Beta-Amyrin Synthase 2 OS=Panax ginseng GN=OSCPNY2 PE=2 SV=1//2.35775e-16  
XLOC\_2436-/-  
XLOC\_2438sp|Q9CAA4|BIM2\_ARATH Transcription factor BIM2 OS=Arabidopsis thaliana GN=BIM2 PE=1 SV=1//7.1818e-94  
XLOC\_2439sp|P04146|COPIA\_DROME Copia protein OS=Drosophila melanogaster GN=GIP PE=1 SV=3//4.56502e-30  
XLOC\_2442sp|Q9SA25|WAKLG\_ARATH Wall-associated receptor kinase-like 8 OS=Arabidopsis thaliana GN=WAKL8 PE=2 SV=1//2.45004e-14  
XLOC\_2442-/-  
XLOC\_2442sp|Q8L612|MACP1\_ARATH MACPF domain-containing protein Atlg14780 OS=Arabidopsis thaliana GN=Atlg14780 PE=2 SV=1//1.179  
XLOC\_2442sp|Q8L612|MACP1\_ARATH MACPF domain-containing protein Atlg14780 OS=Arabidopsis thaliana GN=Atlg14780 PE=2 SV=1//2.425  
XLOC\_2442sp|Q9SA25|WAKLG\_ARATH Wall-associated receptor kinase-like 8 OS=Arabidopsis thaliana GN=WAKL8 PE=2 SV=1//2.04366e-13  
XLOC\_2442sp|Q9LN59|WAKLK\_ARATH Putative wall-associated receptor kinase-like 11 OS=Arabidopsis thaliana GN=WAKL11 PE=3 SV=2//1  
XLOC\_2445sp|P25794|PIP2\_PEA Probable aquaporin PIP-type 7a OS=Pisum sativum GN=TRG-31 PE=2 SV=2//5.60294e-172  
XLOC\_2445sp|P25794|PIP2\_PEA Probable aquaporin PIP-type 7a OS=Pisum sativum GN=TRG-31 PE=2 SV=2//1.69066e-141  
XLOC\_2445sp|Q946J2|SUVR1\_ARATH Histone-lysine N-methyltransferase SUVR1 OS=Arabidopsis thaliana GN=SUVR1 PE=2 SV=2//4.07746e-0  
XLOC\_2445sp|O23530|SNC1\_ARATH Protein SUPPRESSOR OF npr1-1, CONSTITUTIVE 1 OS=Arabidopsis thaliana GN=SNC1 PE=1 SV=3//2.33366e  
XLOC\_2445sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//8.48886e-31  
XLOC\_2445sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//1.1376e-62  
XLOC\_2445sp|Q9FH83|WRK52\_ARATH Probable WRKY transcription factor 52 OS=Arabidopsis thaliana GN=WRKY52 PE=2 SV=3//9.26015e-53  
XLOC\_2446-/-  
XLOC\_2447sp|O81767|PP348\_ARATH Pentatricopeptide repeat-containing protein At4g33990 OS=Arabidopsis thaliana GN=EMB2758 PE=2 S  
XLOC\_2448-/-  
XLOC\_2450sp|Q9SSQ4|FRS6\_ARATH Protein FAR1-RELATED SEQUENCE 6 OS=Arabidopsis thaliana GN=FRS6 PE=2 SV=1//1.41811e-07  
XLOC\_2450sp|Q9FN09|NPY3\_ARATH BTB/POZ domain-containing protein NPY3 OS=Arabidopsis thaliana GN=NPY3 PE=2 SV=1//2.89001e-09  
XLOC\_2451sp|P83877|TXN4A\_MOUSE Thioredoxin-like protein 4A OS=Mus musculus GN=Txn14a PE=2 SV=1//1.18883e-06  
XLOC\_2451sp|P37225|MAON\_SOLTU NAD-dependent malic enzyme 59 kDa isoform, mitochondrial OS=Solanum tuberosum PE=1 SV=1//2.69943



XLOC\_2452sp|Q944H2|AB12I\_ARATH Protein ABCI12, chloroplastic OS=Arabidopsis thaliana GN=ABCI12 PE=1 SV=1//1.91477e-09  
XLOC\_2453sp|Q6NYW6|CLAP2\_DANRE CLIP-associating protein 2 OS=Danio rerio GN=clasp2 PE=2 SV=1//1.44997e-12  
XLOC\_2453sp|Q9FKJ0|FK132\_ARATH F-box/kelch-repeat protein At5g60570 OS=Arabidopsis thaliana GN=At5g60570 PE=2 SV=1//8.1499e-09  
XLOC\_2454sp|COLGX3|HSL2\_ARATH LRR receptor-like serine/threonine-protein kinase HSL2 OS=Arabidopsis thaliana GN=HSL2 PE=2 SV=1  
XLOC\_2454sp|082531|PSB1\_PETHY Proteasome subunit beta type-1 OS=Petunia hybrida GN=PBF1 PE=2 SV=1//5.20596e-06  
XLOC\_2456sp|Q8GUM5|NICA\_ARATH Nicastrin OS=Arabidopsis thaliana GN=At3g52640/At3g52650 PE=2 SV=1//6.23962e-09  
XLOC\_2458sp|023169|PP353\_ARATH Pentatricopeptide repeat-containing protein At4g37170 OS=Arabidopsis thaliana GN=PCMP-H5 PE=2 S  
XLOC\_2461sp|B0BN95|HARB1\_RAT Putative nuclease HARB1 OS=Rattus norvegicus GN=Harbi1 PE=2 SV=1//8.56866e-19  
XLOC\_2462sp|G5E8K5|ANK3\_MOUSE Ankyrin-3 OS=Mus musculus GN=Ank3 PE=1 SV=1//5.33087e-06  
XLOC\_2464-/-  
XLOC\_2466-/-  
XLOC\_2466sp|Q9SR00|PP213\_ARATH Pentatricopeptide repeat-containing protein At3g04760, chloroplastic OS=Arabidopsis thaliana GN  
XLOC\_2467sp|Q05762|DRTS1\_ARATH Bifunctional dihydrofolate reductase-thymidylate synthase 1 OS=Arabidopsis thaliana GN=THY-1 PE  
XLOC\_2467-/-  
XLOC\_2467sp|P26569|H12\_ARATH Histone H1.2 OS=Arabidopsis thaliana GN=At2g30620 PE=1 SV=1//8.08108e-24  
XLOC\_2467-/-  
XLOC\_2467sp|Q4KRV1|GPI8\_PIG GPI-anchor transamidase OS=Sus scrofa GN=PIGK PE=2 SV=1//4.12327e-11  
XLOC\_2468-/-  
XLOC\_2468sp|Q96JB2|COG3\_HUMAN Conserved oligomeric Golgi complex subunit 3 OS=Homo sapiens GN=COG3 PE=1 SV=3//4.69272e-07  
XLOC\_2468sp|P09762|WIN2\_SOLTU Wound-induced protein WIN2 OS=Solanum tuberosum GN=WIN2 PE=2 SV=1//5.07178e-86  
XLOC\_2468sp|C6TBN2|AKR1\_SOYBN Probable aldo-keto reductase 1 OS=Glycine max GN=AKR1 PE=2 SV=1//5.06916e-98  
XLOC\_2469sp|P50134|DCOR\_DATST Ornithine decarboxylase OS=Datura stramonium PE=2 SV=1//4.50608e-57  
XLOC\_2469sp|P50134|DCOR\_DATST Ornithine decarboxylase OS=Datura stramonium PE=2 SV=1//2.2214e-12  
XLOC\_2469-/-  
XLOC\_2469sp|Q21890|YF64\_CAEEL Uncharacterized protein R102.4 OS=Caenorhabditis elegans GN=R102.4 PE=2 SV=3//1.17705e-26  
XLOC\_2469sp|052177|RELA\_MYXXA GTP pyrophosphokinase OS=Myxococcus xanthus GN=relA PE=3 SV=1//6.95866e-17  
XLOC\_2469-/-  
XLOC\_2470sp|Q41387|PSBW\_SPIOL Photosystem II reaction center W protein, chloroplastic OS=Spinacia oleracea GN=psbW PE=1 SV=1//  
XLOC\_2470sp|Q84ZT9|WVD2\_ARATH Protein WAVE-DAMPENED 2 OS=Arabidopsis thaliana GN=WVD2 PE=2 SV=1//4.84044e-27  
XLOC\_2470sp|P02877|HEVE\_HEVBR Pro-hevein OS=Hevea brasiliensis GN=HEV1 PE=1 SV=2//1.17627e-86  
XLOC\_2470sp|Q9SQZ9|PITH1\_ARATH PITH domain-containing protein At3g04780 OS=Arabidopsis thaliana GN=At3g04780 PE=1 SV=2//5.7569  
XLOC\_2472sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//3.59  
XLOC\_2474sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.40  
XLOC\_2474sp|Q8LG53|UN932\_ARATH UNC93-like protein 2 OS=Arabidopsis thaliana GN=At1g18010 PE=2 SV=2//2.08919e-164  
XLOC\_2475sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.23887e-10

XLOC\_2475sp|Q9LTD9|Y5278\_ARATH Uncharacterized protein PAM68-like OS=Arabidopsis thaliana GN=At5g52780 PE=2 SV=1//6.49958e-32  
XLOC\_2477sp|Q8W474|DRL7\_ARATH Probable disease resistance protein Atlg58390 OS=Arabidopsis thaliana GN=Atlg58390 PE=2 SV=4//3.  
XLOC\_2477-//  
XLOC\_2478sp|004017|NAC98\_ARATH Protein CUP-SHAPED COTYLEDON 2 OS=Arabidopsis thaliana GN=NAC098 PE=1 SV=1//5.82897e-104  
XLOC\_2478sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//1.10636e-15  
XLOC\_2478sp|Q9FRS6|PXL1\_ARATH Leucine-rich repeat receptor-like protein kinase PXL1 OS=Arabidopsis thaliana GN=PXL1 PE=2 SV=1/  
XLOC\_2479sp|Q0WRC9|SKI17\_ARATH F-box protein SKIP17 OS=Arabidopsis thaliana GN=SKIP17 PE=1 SV=1//3.78326e-06  
XLOC\_2481-//  
XLOC\_2481sp|O65426|LOL2\_ARATH Protein LOL2 OS=Arabidopsis thaliana GN=LOL2 PE=2 SV=1//1.22579e-06  
XLOC\_2487-//  
XLOC\_2489sp|A9GP90|UREG\_SORC5 Urease accessory protein UreG OS=Sorangium cellulosum (strain So ce56) GN=ureG PE=3 SV=1//4.3648  
XLOC\_2490-//  
XLOC\_2490sp|Q94F47|UBC28\_ARATH Ubiquitin-conjugating enzyme E2 28 OS=Arabidopsis thaliana GN=UBC28 PE=2 SV=1//2.98918e-104  
XLOC\_2495sp|Q2L910|NDHJ\_GOSHI NAD(P)H-quinone oxidoreductase subunit J, chloroplastic OS=Gossypium hirsutum GN=ndhJ PE=3 SV=1/  
XLOC\_2495sp|Q2PMQ5|CYB6\_SOYBN Cytochrome b6 OS=Glycine max GN=petB PE=3 SV=1//2.22863e-46  
XLOC\_2496sp|O80365|ARR8\_ARATH Two-component response regulator ARR8 OS=Arabidopsis thaliana GN=ARR8 PE=1 SV=1//2.70157e-70  
XLOC\_2497sp|P92519|M810\_ARATH Uncharacterized mitochondrial protein AtMg00810 OS=Arabidopsis thaliana GN=AtMg00810 PE=4 SV=1//  
XLOC\_2497sp|Q8S403|PHO1\_ARATH Phosphate transporter PHO1 OS=Arabidopsis thaliana GN=PHO1 PE=2 SV=1//3.06276e-12  
XLOC\_2500sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//1.127  
XLOC\_2501sp|Q9LQ10|1A110\_ARATH Probable aminotransferase ACS10 OS=Arabidopsis thaliana GN=ACS10 PE=2 SV=1//7.30906e-47  
XLOC\_2502sp|Q9TOD3|HFB2B\_ARATH Heat stress transcription factor B-2b OS=Arabidopsis thaliana GN=HSFB2B PE=2 SV=1//1.30896e-78  
XLOC\_2502-//  
XLOC\_2503sp|P35130|UBC2\_MEDSA Ubiquitin-conjugating enzyme E2 2 OS=Medicago sativa GN=UBC2 PE=2 SV=1//1.3275e-104  
XLOC\_2504-//  
XLOC\_2507sp|Q39024|MPK4\_ARATH Mitogen-activated protein kinase 4 OS=Arabidopsis thaliana GN=MPK4 PE=1 SV=2//6.30372e-18  
XLOC\_2509-//  
XLOC\_2511sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.16  
XLOC\_2511-//  
XLOC\_2514sp|Q96MB7|HARB1\_HUMAN Putative nuclease HARB1 OS=Homo sapiens GN=HARB1 PE=1 SV=1//1.38104e-20  
XLOC\_2515sp|Q5RE03|PRP18\_PONAB Pre-mRNA-splicing factor 18 OS=Pongo abelii GN=PRPF18 PE=2 SV=1//2.3785e-54  
XLOC\_2519sp|Q9SXJ6|CLPP3\_ARATH ATP-dependent Clp protease proteolytic subunit 3, chloroplastic OS=Arabidopsis thaliana GN=CLPP  
XLOC\_2519sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.18  
XLOC\_2519sp|POC8S1|RP8L2\_ARATH Probable disease resistance RPP8-like protein 2 OS=Arabidopsis thaliana GN=RPP8L2 PE=1 SV=1//1.  
XLOC\_2520sp|Q0WSN2|DAR2\_ARATH Protein DA1-related 2 OS=Arabidopsis thaliana GN=DAR2 PE=2 SV=1//2.29568e-143  
XLOC\_2520-//

XLOC\_2521sp|Q8GYB1|NUD15\_ARATH Nudix hydrolase 15, mitochondrial OS=Arabidopsis thaliana GN=NUDT15 PE=1 SV=2//2.52579e-52  
XLOC\_2521sp|Q6VAF4|TBB9\_GOSHI Tubulin beta-9 chain OS=Gossypium hirsutum PE=2 SV=1//0  
XLOC\_2522-//  
XLOC\_2525-//  
XLOC\_2525sp|P42791|RL182\_ARATH 60S ribosomal protein L18-2 OS=Arabidopsis thaliana GN=RPL18B PE=1 SV=2//4.2347e-105  
XLOC\_2527sp|Q500W7|PIGM\_ARATH GPI mannosyltransferase 1 OS=Arabidopsis thaliana GN=PIGM PE=2 SV=1//2.64439e-51  
XLOC\_2528-//  
XLOC\_2528-//  
XLOC\_2528sp|B6IPJ8|RL20\_RHOCS 50S ribosomal protein L20 OS=Rhodospirillum centenum (strain ATCC 51521 / SW) GN=rp1T PE=3 SV=1/  
XLOC\_2528sp|P49636|RL40\_NICSY Ubiquitin-60S ribosomal protein L40 OS=Nicotiana glauca GN=UBICEP52-7 PE=2 SV=2//5.23355e-86  
XLOC\_2531sp|Q8RXC8|RBK2\_ARATH Receptor-like cytosolic serine/threonine-protein kinase RBK2 OS=Arabidopsis thaliana GN=RBK2 PE=  
XLOC\_2534sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//2.71472e-18  
XLOC\_2534sp|Q00IB6|CPL4\_ARATH RNA polymerase II C-terminal domain phosphatase-like 4 OS=Arabidopsis thaliana GN=CPL4 PE=1 SV=1  
XLOC\_2534sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//1.28002e-39  
XLOC\_2534-//  
XLOC\_2535sp|P24397|HY6H\_HYONI Hyoscyamine 6-dioxygenase OS=Hyoscyamus niger GN=H6H PE=1 SV=1//5.53113e-71  
XLOC\_2536sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//8.35928e-22  
XLOC\_2537sp|Q8L7H1|FBL75\_ARATH F-box/LRR-repeat protein At4g14103 OS=Arabidopsis thaliana GN=At4g14103 PE=2 SV=1//2.74163e-33  
XLOC\_2539sp|Q94F30|ESD4\_ARATH Ubiquitin-like-specific protease ESD4 OS=Arabidopsis thaliana GN=ESD4 PE=1 SV=1//3.47574e-12  
XLOC\_2539sp|Q9FID6|Y5392\_ARATH Probable receptor-like protein kinase At5g39020 OS=Arabidopsis thaliana GN=At5g39020 PE=2 SV=1/  
XLOC\_2540sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//1.71568e-16  
XLOC\_2541sp|Q6AZB8|HARB1\_DANRE Putative nuclease HARB1 OS=Danio rerio GN=harbil PE=2 SV=1//7.80414e-27  
XLOC\_2543sp|Q84W27|SCP43\_ARATH Serine carboxypeptidase-like 43 OS=Arabidopsis thaliana GN=SCPL43 PE=2 SV=1//5.22127e-18  
XLOC\_2545-//  
XLOC\_2545sp|Q9ZVC9|FRS3\_ARATH Protein FAR1-RELATED SEQUENCE 3 OS=Arabidopsis thaliana GN=FRS3 PE=2 SV=2//0  
XLOC\_2546sp|008997|ATOX1\_MOUSE Copper transport protein ATOX1 OS=Mus musculus GN=Atox1 PE=2 SV=1//4.0928e-08  
XLOC\_2546-//  
XLOC\_2548sp|A2XF13|PDC2\_ORYSI Pyruvate decarboxylase isozyme 2 OS=Oryza sativa subsp. indica GN=PDC2 PE=2 SV=2//0  
XLOC\_2549-//  
XLOC\_2551sp|POC073|RUB1\_DESAN Ubiquitin-NEDD8-like protein RUB1 OS=Deschampsia antarctica GN=RUB1 PE=2 SV=2//1.11077e-16  
XLOC\_2551sp|Q9FFN4|BGAL6\_ARATH Beta-galactosidase 6 OS=Arabidopsis thaliana GN=BGAL6 PE=2 SV=1//1.00615e-39  
XLOC\_2555sp|Q8W486|Y1491\_ARATH Uncharacterized protein At1g04910 OS=Arabidopsis thaliana GN=At1g04910 PE=1 SV=1//2.3291e-09  
XLOC\_2558sp|Q9SSR1|Y1259\_ARATH DCC family protein At1g52590, chloroplastic OS=Arabidopsis thaliana GN=At1g52590 PE=1 SV=1//4.9  
XLOC\_2562sp|P62981|RS27A\_SOLTU Ubiquitin-40S ribosomal protein S27a OS=Solanum tuberosum GN=UBI3 PE=2 SV=2//2.78356e-83  
XLOC\_2562sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.92

XLOC\_2567sp|P32110|GSTX6\_SOYBN Probable glutathione S-transferase OS=Glycine max GN=HSP26-A PE=2 SV=1//6.60987e-11  
XLOC\_2570sp|Q8LBB7|LOG5\_ARATH Cytokinin riboside 5'-monophosphate phosphoribohydrolase LOG5 OS=Arabidopsis thaliana GN=LC  
XLOC\_2571-//  
XLOC\_2572sp|P53849|GIS2\_YEAST Zinc finger protein GIS2 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=GIS2 PE=1 S  
XLOC\_2573sp|Q9XER8|RAB7\_GOSHI Ras-related protein Rab7 OS=Gossypium hirsutum GN=RAB7 PE=2 SV=1//7.99813e-28  
XLOC\_2574-//  
XLOC\_2575sp|P33080|AX10A\_SOYBN Auxin-induced protein X10A OS=Glycine max PE=2 SV=1//9.81719e-25  
XLOC\_2576-//  
XLOC\_2577sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.16  
XLOC\_2580sp|Q8S1Z1|UTP11\_ORYSJ Probable U3 small nucleolar RNA-associated protein 11 OS=Oryza sativa subsp. japonica GN=Os01g0  
XLOC\_2581sp|Q9S7U9|M2K2\_ARATH Mitogen-activated protein kinase kinase 2 OS=Arabidopsis thaliana GN=MKK2 PE=1 SV=2//6.48932e-67  
XLOC\_2581-//  
XLOC\_2581sp|P61166|TM258\_MOUSE Transmembrane protein 258 OS=Mus musculus GN=Tmem258 PE=2 SV=1//1.45719e-06  
XLOC\_2581sp|Q9SZI6|GAT22\_ARATH Putative GATA transcription factor 22 OS=Arabidopsis thaliana GN=GATA22 PE=2 SV=1//1.89096e-30  
XLOC\_2582sp|Q42484|RPS2\_ARATH Disease resistance protein RPS2 OS=Arabidopsis thaliana GN=RPS2 PE=1 SV=1//3.3944e-88  
XLOC\_2582sp|Q38932|LCYE\_ARATH Lycopene epsilon cyclase, chloroplastic OS=Arabidopsis thaliana GN=LUT2 PE=1 SV=2//1.45944e-14  
XLOC\_2582-//  
XLOC\_2582sp|Q9LTS4|BH041\_ARATH Putative transcription factor bHLH041 OS=Arabidopsis thaliana GN=BHLH41 PE=4 SV=1//6.72271e-25  
XLOC\_2582-//  
XLOC\_2582sp|Q9ZUN5|TET2\_ARATH Tetraspanin-2 OS=Arabidopsis thaliana GN=TET2 PE=2 SV=1//6.28936e-105  
XLOC\_2582sp|Q8S9H7|DIV\_ANTMA Transcription factor DIVARICATA OS=Antirrhinum majus GN=DIVARICATA PE=2 SV=1//2.97457e-29  
XLOC\_2583sp|Q9NPC4|A4GAT\_HUMAN Lactosylceramide 4-alpha-galactosyltransferase OS=Homo sapiens GN=A4GALT PE=2 SV=1//5.31925e-22  
XLOC\_2584sp|Q9FXF2|RKF1\_ARATH Probable LRR receptor-like serine/threonine-protein kinase RKF1 OS=Arabidopsis thaliana GN=RKF1  
XLOC\_2585-//  
XLOC\_2586-//  
XLOC\_2586sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//2.64651e-27  
XLOC\_2586sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//9.62991e-12  
XLOC\_2587sp|Q9LRR4|R13L1\_ARATH Putative disease resistance RPP13-like protein 1 OS=Arabidopsis thaliana GN=RPPL1 PE=2 SV=1//3.  
XLOC\_2587sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//4.49245e-118  
XLOC\_2587-//  
XLOC\_2591sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.16  
XLOC\_2593-//  
XLOC\_2594-//  
XLOC\_2594-//  
XLOC\_2595-//

XLOC\_2595-/-  
XLOC\_2596sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=Oryza sativa subsp  
XLOC\_2597sp|Q93ZF5|PHO11\_ARATH Phosphate transporter PHO1 homolog 1 OS=Arabidopsis thaliana GN=PHO1-H1 PE=2 SV=1//6.48401e-52  
XLOC\_2597-/-  
XLOC\_2600-/-  
XLOC\_2600sp|A1B4F0|DNAJ\_PARDP Chaperone protein DnaJ OS=Paracoccus denitrificans (strain Pd 1222) GN=dnaJ PE=3 SV=1//3.38462e-  
XLOC\_2600sp|Q6AWY3|GRF6\_ORYSJ Growth-regulating factor 6 OS=Oryza sativa subsp. japonica GN=GRF6 PE=2 SV=2//5.07052e-12  
XLOC\_2600-/-  
XLOC\_2600-/-  
XLOC\_2600sp|O48651|ERG1\_PANGI Squalene monooxygenase OS=Panax ginseng PE=2 SV=1//7.60373e-132  
XLOC\_2600-/-  
XLOC\_2601sp|Q6QNM1|KC1\_TOXGO Casein kinase I OS=Toxoplasma gondii PE=2 SV=1//1.3493e-10  
XLOC\_2604sp|Q93ZM9|TIF9\_ARATH Protein TIFY 9 OS=Arabidopsis thaliana GN=TIFY9 PE=1 SV=1//8.02587e-36  
XLOC\_2604sp|Q9LYV6|GEM15\_ARATH GEM-like protein 5 OS=Arabidopsis thaliana GN=At5g13200 PE=1 SV=1//1.4226e-85  
XLOC\_2604sp|Q94AG2|SERK1\_ARATH Somatic embryogenesis receptor kinase 1 OS=Arabidopsis thaliana GN=SERK1 PE=1 SV=2//9.6527e-50  
XLOC\_2604sp|Q9FY94|SWT15\_ARATH Bidirectional sugar transporter SWEET15 OS=Arabidopsis thaliana GN=SWEET15 PE=2 SV=1//1.10278e-  
XLOC\_2604sp|Q9SIV3|GLK1\_ARATH Transcription activator GLK1 OS=Arabidopsis thaliana GN=GLK1 PE=2 SV=2//5.07712e-75  
XLOC\_2604-/-  
XLOC\_2604sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//1.16589e-44  
XLOC\_2604sp|Q9SUI5|PSAK\_ARATH Photosystem I reaction center subunit psaK, chloroplastic OS=Arabidopsis thaliana GN=PSAK PE=2 S  
XLOC\_2605sp|Q9Y5A9|YTHD2\_HUMAN YTH domain family protein 2 OS=Homo sapiens GN=YTHDF2 PE=1 SV=2//1.3549e-50  
XLOC\_2605-/-  
XLOC\_2608sp|Q8VY88|LTD\_ARATH Protein LHCP TRANSLOCATION DEFECT OS=Arabidopsis thaliana GN=LTD PE=1 SV=1//1.61164e-79  
XLOC\_2609-/-  
XLOC\_2610sp|P04146|COPIA\_DROME Copia protein OS=Drosophila melanogaster GN=GIP PE=1 SV=3//7.9769e-10  
XLOC\_2610sp|P19892|RAA5E\_ARATH Ras-related protein RABA5e OS=Arabidopsis thaliana GN=RABA5E PE=2 SV=1//2.75341e-124  
XLOC\_2610sp|Q9SZL8|FRS5\_ARATH Protein FAR1-RELATED SEQUENCE 5 OS=Arabidopsis thaliana GN=FRS5 PE=2 SV=1//2.79536e-23  
XLOC\_2611sp|P14381|YTX2\_XENLA Transposon TX1 uncharacterized 149 kDa protein OS=Xenopus laevis PE=4 SV=1//3.82771e-12  
XLOC\_2615-/-  
XLOC\_2615-/-  
XLOC\_2615-/-  
XLOC\_2615sp|Q9M0Z3|KEA3\_ARATH K(+) efflux antiporter 3, chloroplastic OS=Arabidopsis thaliana GN=KEA3 PE=1 SV=2//3.37552e-94  
XLOC\_2616sp|A5YVF1|SGS3\_SOLLIC Protein SUPPRESSOR OF GENE SILENCING 3 OS=Solanum lycopersicum GN=SGS3 PE=1 SV=1//2.37816e-15  
XLOC\_2616sp|Q93VG8|PPDEX\_ARATH DeSI-like protein At4g17486 OS=Arabidopsis thaliana GN=At4g17486 PE=2 SV=1//4.04167e-55  
XLOC\_2620-/-

XLOC\_2620-/-  
XLOC\_2620sp|Q93X23|MYRS\_QUEIL Myrcene synthase, chloroplastic OS=Quercus ilex PE=1 SV=1//1.65969e-150  
XLOC\_2625sp|Q9T048|DRL27\_ARATH Disease resistance protein At4g27190 OS=Arabidopsis thaliana GN=At4g27190 PE=2 SV=1//3.05399e-0  
XLOC\_2629-/-  
XLOC\_2634sp|O64967|HMDH2\_GOSHI 3-hydroxy-3-methylglutaryl-coenzyme A reductase 2 OS=Gossypium hirsutum GN=HMG2 PE=3 SV=1//0  
XLOC\_2634sp|P29058|HMDH2\_HEVBR 3-hydroxy-3-methylglutaryl-coenzyme A reductase 2 (Fragment) OS=Hevea brasiliensis GN=HMGR2 PE=  
XLOC\_2635sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//4.63275e-96  
XLOC\_2637-/-  
XLOC\_2638-/-  
XLOC\_2640sp|Q9ZVH3|ORC6\_ARATH Origin recognition complex subunit 6 OS=Arabidopsis thaliana GN=ORC6 PE=1 SV=2//9.66726e-41  
XLOC\_2641sp|O80365|ARR8\_ARATH Two-component response regulator ARR8 OS=Arabidopsis thaliana GN=ARR8 PE=1 SV=1//8.93149e-71  
XLOC\_2642sp|Q7X843|ATL48\_ARATH RING-H2 finger protein ATL48 OS=Arabidopsis thaliana GN=ATL48 PE=2 SV=2//2.16325e-41  
XLOC\_2642sp|Q8L8T2|GRXC1\_ARATH Glutaredoxin-C1 OS=Arabidopsis thaliana GN=GRXC1 PE=2 SV=2//1.2586e-39  
XLOC\_2643sp|P16016|CAHC\_SPIOL Carbonic anhydrase, chloroplastic OS=Spinacia oleracea PE=1 SV=2//1.56424e-11  
XLOC\_2646sp|O23342|SECE1\_ARATH Preprotein translocase subunit SECE1 OS=Arabidopsis thaliana GN=SECE1 PE=1 SV=1//4.30287e-34  
XLOC\_2647-/-  
XLOC\_2648-/-  
XLOC\_2649sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.52  
XLOC\_2652sp|Q28BZ1|RBM8A\_XENTR RNA-binding protein 8A OS=Xenopus tropicalis GN=rbm8a PE=2 SV=1//6.28146e-43  
XLOC\_2653sp|Q7LHG5|YI31B\_YEAST Transposon Ty3-I Gag-Pol polyprotein OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) G  
XLOC\_2653-/-  
XLOC\_2655sp|P48504|QCR6\_SOLTU Cytochrome b-c1 complex subunit 6 OS=Solanum tuberosum PE=1 SV=2//4.08297e-08  
XLOC\_2658sp|P69322|UBIQP\_PEA Polyubiquitin OS=Pisum sativum GN=PU1 PE=2 SV=2//0  
XLOC\_2658sp|POCH32|UBQ4\_ARATH Polyubiquitin 4 OS=Arabidopsis thaliana GN=UBQ4 PE=1 SV=1//0  
XLOC\_2660sp|O04378|SYP23\_ARATH Syntaxin-23 OS=Arabidopsis thaliana GN=SYP23 PE=2 SV=1//2.05465e-09  
XLOC\_2660-/-  
XLOC\_2662-/-  
XLOC\_2664sp|Q9NPC4|A4GAT\_HUMAN Lactosylceramide 4-alpha-galactosyltransferase OS=Homo sapiens GN=A4GALT PE=2 SV=1//7.65382e-20  
XLOC\_2672sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.50  
XLOC\_2673-/-  
XLOC\_2676-/-  
XLOC\_2677sp|Q7X843|ATL48\_ARATH RING-H2 finger protein ATL48 OS=Arabidopsis thaliana GN=ATL48 PE=2 SV=2//2.15275e-41  
XLOC\_2680sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//3.71455e-19  
XLOC\_2681-/-  
XLOC\_2681sp|P25349|YCP4\_YEAST Flavoprotein-like protein YCP4 OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) GN=YCP4

XLOC\_2682-/-  
XLOC\_2684-/-  
XLOC\_2684sp|C7J4U3|OST4A\_ORYSJ Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 4A OS=*Oryza sativa* subsp  
XLOC\_2685sp|P24397|HY6H\_HYONI Hyoscyamine 6-dioxygenase OS=*Hyoscyamus niger* GN=H6H PE=1 SV=1//3.74957e-59  
XLOC\_2685sp|004921|HEMH2\_ARATH Ferrochelatase-2, chloroplastic OS=*Arabidopsis thaliana* GN=At2g30390 PE=2 SV=1//5.89428e-07  
XLOC\_2686sp|Q56YJ8|FAMA\_ARATH Transcription factor FAMA OS=*Arabidopsis thaliana* GN=FMA PE=1 SV=1//2.26437e-136  
XLOC\_2687-/-  
XLOC\_2690sp|Q9LT17|BBR\_ARATH E3 ubiquitin ligase BIG BROTHER-related OS=*Arabidopsis thaliana* GN=BBR PE=2 SV=1//3.87195e-76  
XLOC\_2695sp|Q9ZRD6|YKT61\_ARATH VAMP-like protein YKT61 OS=*Arabidopsis thaliana* GN=YKT61 PE=2 SV=1//1.79937e-17  
XLOC\_2697sp|Q4R4E4|MON1B\_MACFA Vacuolar fusion protein MON1 homolog B OS=*Macaca fascicularis* GN=MON1B PE=2 SV=1//2.10269e-07  
XLOC\_2697-/-  
XLOC\_2697sp|Q8NI08|NCOA7\_HUMAN Nuclear receptor coactivator 7 OS=*Homo sapiens* GN=NCOA7 PE=1 SV=2//1.66605e-14  
XLOC\_2698sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=*Arabidopsis thaliana* GN=Atlg65750 PE=3 SV=1//5.168  
XLOC\_2705sp|Q96MB7|HARB1\_HUMAN Putative nuclease HARB1 OS=*Homo sapiens* GN=HARB1 PE=1 SV=1//9.97087e-21  
XLOC\_2706sp|Q9SX38|DRL4\_ARATH Putative disease resistance protein Atlg50180 OS=*Arabidopsis thaliana* GN=Atlg50180 PE=2 SV=2//3.  
XLOC\_2708-/-  
XLOC\_2709sp|P04146|COPIA\_DROME Copia protein OS=*Drosophila melanogaster* GN=GIP PE=1 SV=3//4.59338e-105  
XLOC\_2709sp|P37392|TBB1\_LUPAL Tubulin beta-1 chain OS=*Lupinus albus* GN=TUBB1 PE=3 SV=1//0  
XLOC\_2709sp|P37392|TBB1\_LUPAL Tubulin beta-1 chain OS=*Lupinus albus* GN=TUBB1 PE=3 SV=1//0  
XLOC\_2711sp|Q9LTD9|Y5278\_ARATH Uncharacterized protein PAM68-like OS=*Arabidopsis thaliana* GN=At5g52780 PE=2 SV=1//2.41306e-20  
XLOC\_2715-/-  
XLOC\_2716sp|P42745|UBC2\_ARATH Ubiquitin-conjugating enzyme E2 2 OS=*Arabidopsis thaliana* GN=UBC2 PE=2 SV=1//2.18913e-11  
XLOC\_2717sp|Q9MAM1|CIPK9\_ARATH CBL-interacting serine/threonine-protein kinase 9 OS=*Arabidopsis thaliana* GN=CIPK9 PE=1 SV=2//1  
XLOC\_2718sp|Q42551|SCE1\_ARATH SUMO-conjugating enzyme SCE1 OS=*Arabidopsis thaliana* GN=SCE1 PE=1 SV=1//1.53313e-49  
XLOC\_2719sp|P08770|TRA1\_MAIZE Putative AC transposase OS=*Zea mays* PE=2 SV=2//1.31688e-10  
XLOC\_2719sp|P35130|UBC2\_MEDSA Ubiquitin-conjugating enzyme E2 2 OS=*Medicago sativa* GN=UBC2 PE=2 SV=1//8.56705e-100  
XLOC\_2722sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=*Nicotiana tabacum* PE=2 SV=1//6.80  
XLOC\_2724-/-  
XLOC\_2725sp|P49636|RL40\_NICSY Ubiquitin-60S ribosomal protein L40 OS=*Nicotiana sylvestris* GN=UBICEP52-7 PE=2 SV=2//1.01471e-71  
XLOC\_2728-/-  
XLOC\_2728sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=*Arabidopsis thaliana* GN=Atlg65750 PE=3 SV=1//1.300  
XLOC\_2730sp|Q9SKT3|SCAM1\_ARATH Secretory carrier-associated membrane protein 1 OS=*Arabidopsis thaliana* GN=SCAMP1 PE=1 SV=1//2.  
XLOC\_2733-/-  
XLOC\_2733sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=*Nicotiana tabacum* PE=2 SV=1//3.25  
XLOC\_2736sp|Q9ZQI7|ALD1\_ARATH Aminotransferase ALD1 OS=*Arabidopsis thaliana* GN=ALD1 PE=2 SV=2//3.55335e-19

XLOC\_2736sp|Q9SZN7|HIP26\_ARATH Heavy metal-associated isoprenylated plant protein 26 OS=Arabidopsis thaliana GN=HIP26 PE=1 SV  
XLOC\_2736sp|Q84N64|ARC5\_ARATH Dynamin-like protein ARC5 OS=Arabidopsis thaliana GN=ARC5 PE=1 SV=2//4.25804e-26  
XLOC\_2736sp|Q9SZ67|WRK19\_ARATH Probable WRKY transcription factor 19 OS=Arabidopsis thaliana GN=WRKY19 PE=2 SV=1//2.58121e-41  
XLOC\_2736sp|Q9LM55|FBK8\_ARATH F-box/kelch-repeat protein Atlg22040 OS=Arabidopsis thaliana GN=Atlg22040 PE=2 SV=1//0  
XLOC\_2737-/-  
XLOC\_2738sp|Q8VYA5|RSZ33\_ARATH Serine/arginine-rich splicing factor RS2Z33 OS=Arabidopsis thaliana GN=RS2Z33 PE=1 SV=1//2.1297  
XLOC\_2739sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//5.92  
XLOC\_2739-/-  
XLOC\_2743sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//4.16406e-42  
XLOC\_2743sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//4.20024e-16  
XLOC\_2743sp|Q9FL92|WRK16\_ARATH Probable WRKY transcription factor 16 OS=Arabidopsis thaliana GN=WRKY16 PE=2 SV=1//2.61561e-13  
XLOC\_2744sp|Q9LKL2|APRR1\_ARATH Two-component response regulator-like APRR1 OS=Arabidopsis thaliana GN=APRR1 PE=1 SV=1//2.85735  
XLOC\_2744sp|P49636|RL40\_NICSY Ubiquitin-60S ribosomal protein L40 OS=Nicotiana sylvestris GN=UBICEP52-7 PE=2 SV=2//2.71694e-88  
XLOC\_2745-/-  
XLOC\_2746sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.64  
XLOC\_2746-/-  
XLOC\_2751-/-  
XLOC\_2752sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//4.54  
XLOC\_2753-/-  
XLOC\_2753-/-  
XLOC\_2756sp|Q8RYC8|ARFS\_ARATH Auxin response factor 19 OS=Arabidopsis thaliana GN=ARF19 PE=1 SV=2//6.2762e-134  
XLOC\_2759-/-  
XLOC\_2760sp|Q7X8C5|WAKLB\_ARATH Wall-associated receptor kinase-like 2 OS=Arabidopsis thaliana GN=WAKL2 PE=2 SV=1//1.62739e-88  
XLOC\_2760sp|Q8RY17|WAKLI\_ARATH Wall-associated receptor kinase-like 22 OS=Arabidopsis thaliana GN=WAKL22 PE=2 SV=1//1.05571e-0  
XLOC\_2760sp|Q9LHP4|RCH2\_ARATH Receptor-like protein kinase 2 OS=Arabidopsis thaliana GN=RCH2 PE=1 SV=1//2.12108e-40  
XLOC\_2760-/-  
XLOC\_2761sp|O34508|AEEP\_BACSU L-Ala-D/L-Glu epimerase OS=Bacillus subtilis (strain 168) GN=ykfb PE=1 SV=1//3.63575e-51  
XLOC\_2762sp|Q93ZT5|EDL3\_ARATH EID1-like F-box protein 3 OS=Arabidopsis thaliana GN=EDL3 PE=2 SV=1//4.346e-62  
XLOC\_2765sp|Q9FZJ1|IRX10\_ARATH Probable beta-1,4-xylosyltransferase IRX10 OS=Arabidopsis thaliana GN=IRX10 PE=2 SV=1//3.75295e  
XLOC\_2766sp|Q940Z2|ARP5\_ARATH Actin-related protein 5 OS=Arabidopsis thaliana GN=ARP5 PE=1 SV=2//0  
XLOC\_2767sp|Q9TOD3|HFB2B\_ARATH Heat stress transcription factor B-2b OS=Arabidopsis thaliana GN=HSFB2B PE=2 SV=1//5.62389e-15  
XLOC\_2768-/-  
XLOC\_2770sp|P09394|GLPQ\_ECOLI Glycerophosphoryl diester phosphodiesterase OS=Escherichia coli (strain K12) GN=glpQ PE=1 SV=2//  
XLOC\_2770sp|Q9SVM8|GRP2\_ARATH Glycine-rich RNA-binding protein 2, mitochondrial OS=Arabidopsis thaliana GN=GRP2 PE=1 SV=1//5.3  
XLOC\_2770-/-



XLOC\_2770sp|P42730|CLPB1\_ARATH Chaperone protein ClpB1 OS=Arabidopsis thaliana GN=CLPB1 PE=1 SV=2//0  
XLOC\_2770sp|P27880|HSP12\_MEDSA 18.2 kDa class I heat shock protein OS=Medicago sativa GN=HSP18.2 PE=2 SV=1//5.13548e-70  
XLOC\_2770-/-  
XLOC\_2772-/-  
XLOC\_2774sp|P42856|ZB14\_MAIZE 14 kDa zinc-binding protein OS=Zea mays GN=ZBP14 PE=1 SV=1//4.23784e-07  
XLOC\_2775sp|Q8RWM3|MED27\_ARATH Mediator of RNA polymerase II transcription subunit 27 OS=Arabidopsis thaliana GN=MED27 PE=1 SV  
XLOC\_2775sp|Q8VYA5|RSZ33\_ARATH Serine/arginine-rich splicing factor RS2Z33 OS=Arabidopsis thaliana GN=RS2Z33 PE=1 SV=1//3.9944  
XLOC\_2776sp|F4I933|STR8\_ARATH Rhodanese-like domain-containing protein 8, chloroplastic OS=Arabidopsis thaliana GN=STR8 PE=2 S  
XLOC\_2780sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//5.40918e-75  
XLOC\_2782sp|Q9SHZ8|PP168\_ARATH Pentatricopeptide repeat-containing protein At2g22070 OS=Arabidopsis thaliana GN=PCMP-H41 PE=2  
XLOC\_2783sp|Q43019|NLTP3\_PRUDU Non-specific lipid-transfer protein 3 OS=Prunus dulcis PE=2 SV=1//2.48252e-22  
XLOC\_2783sp|Q9LX82|MYB48\_ARATH Transcription factor MYB48 OS=Arabidopsis thaliana GN=MYB48 PE=2 SV=1//8.81409e-15  
XLOC\_2783-/-  
XLOC\_2784-/-  
XLOC\_2785sp|P49689|RS30\_ARATH 40S ribosomal protein S30 OS=Arabidopsis thaliana GN=RPS30A PE=1 SV=3//6.01282e-12  
XLOC\_2785sp|P48631|FD6E2\_SOYBN Omega-6 fatty acid desaturase, endoplasmic reticulum isozyme 2 OS=Glycine max GN=FAD2-2 PE=2 SV  
XLOC\_2793sp|A2RRP1|NBAS\_HUMAN Neuroblastoma-amplified sequence OS=Homo sapiens GN=NBAS PE=1 SV=2//7.53347e-07  
XLOC\_2793sp|P52855|RLA1\_MAIZE 60S acidic ribosomal protein P1 OS=Zea mays GN=RPP1A PE=1 SV=1//7.75368e-25  
XLOC\_2794-/-  
XLOC\_2795-/-  
XLOC\_2796-/-  
XLOC\_2797sp|Q54WM0|T1843\_DICDI Transmembrane protein 184 homolog DDB\_G0279555 OS=Dictyostelium discoideum GN=tmem184C PE=3 SV=  
XLOC\_2798sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//8.22  
XLOC\_2798-/-  
XLOC\_2798sp|Q9SHI3|RLP2\_ARATH Receptor-like protein 2 OS=Arabidopsis thaliana GN=RLP2 PE=2 SV=1//3.00223e-14  
XLOC\_2798-/-  
XLOC\_2798sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//1.00199e-06  
XLOC\_2798sp|Q9C9H7|RLP12\_ARATH Receptor-like protein 12 OS=Arabidopsis thaliana GN=RLP12 PE=2 SV=2//1.73348e-15  
XLOC\_2799sp|Q9XIA7|TOM6\_ARATH Mitochondrial import receptor subunit TOM6 homolog OS=Arabidopsis thaliana GN=TOM6 PE=1 SV=1//1.  
XLOC\_2803sp|P04323|POL3\_DROME Retrovirus-related Pol polyprotein from transposon 17.6 OS=Drosophila melanogaster GN=pol PE=4 S  
XLOC\_2806sp|Q9M2Y6|Y3972\_ARATH Uncharacterized protein At3g49720 OS=Arabidopsis thaliana GN=At3g49720 PE=1 SV=1//6.6336e-111  
XLOC\_2807-/-  
XLOC\_2808sp|Q9LRR4|R13L1\_ARATH Putative disease resistance RPP13-like protein 1 OS=Arabidopsis thaliana GN=RPPL1 PE=2 SV=1//4.  
XLOC\_2808sp|Q9LRR5|DRL21\_ARATH Putative disease resistance protein At3g14460 OS=Arabidopsis thaliana GN=At3g14460 PE=2 SV=1//4  
XLOC\_2809sp|Q56XU4|C3H6\_ARATH Zinc finger CCCH domain-containing protein 6 OS=Arabidopsis thaliana GN=At1g19860 PE=2 SV=1//3.7

XLOC\_2811-//  
XLOC\_2813sp|A9BIJ7|SYV\_PETMO Valine--tRNA ligase OS=Petrogona mobilis (strain DSM 10674 / SJ95) GN=valS PE=3 SV=1//2.47688e-08  
XLOC\_2813sp|Q84JK8|MAKR6\_ARATH Probable membrane-associated kinase regulator 6 OS=Arabidopsis thaliana GN=MAKR6 PE=2 SV=1//1.9  
XLOC\_2814-//  
XLOC\_2814sp|O15050|TRNK1\_HUMAN TPR and ankyrin repeat-containing protein 1 OS=Homo sapiens GN=TRANK1 PE=2 SV=4//1.26304e-19  
XLOC\_2815sp|Q9FNA2|PA01\_ARATH Polyamine oxidase 1 OS=Arabidopsis thaliana GN=PA01 PE=1 SV=1//0  
XLOC\_2816sp|Q94A94|DCDA2\_ARATH Diaminopimelate decarboxylase 2, chloroplastic OS=Arabidopsis thaliana GN=LYSA2 PE=2 SV=1//8.82  
XLOC\_2816sp|Q84P24|4CLL6\_ARATH 4-coumarate--CoA ligase-like 6 OS=Arabidopsis thaliana GN=4CLL6 PE=2 SV=2//9.20256e-39  
XLOC\_2816sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//6.77  
XLOC\_2817sp|O55055|TRDMT\_MOUSE tRNA (cytosine(38)-C(5))-methyltransferase OS=Mus musculus GN=Trdmt1 PE=2 SV=2//7.66568e-08  
XLOC\_2817sp|Q0WPT7|Y2104\_ARATH Uncharacterized methyltransferase At2g41040, chloroplastic OS=Arabidopsis thaliana GN=At2g41040  
XLOC\_2817sp|O22969|Y2416\_ARATH Uncharacterized protein At2g34160 OS=Arabidopsis thaliana GN=At2g34160 PE=1 SV=1//1.06865e-15  
XLOC\_2818sp|P24922|IF5A2\_NICPL Eukaryotic translation initiation factor 5A-2 OS=Nicotiana plumbaginifolia GN=EIF-5A2 PE=2 SV=1  
XLOC\_2818sp|Q9FLQ7|FH20\_ARATH Formin-like protein 20 OS=Arabidopsis thaliana GN=FH20 PE=2 SV=3//2.99995e-85  
XLOC\_2818sp|Q9FLQ7|FH20\_ARATH Formin-like protein 20 OS=Arabidopsis thaliana GN=FH20 PE=2 SV=3//3.41601e-80  
XLOC\_2818sp|Q9FLQ7|FH20\_ARATH Formin-like protein 20 OS=Arabidopsis thaliana GN=FH20 PE=2 SV=3//1.90826e-16  
XLOC\_2819sp|Q94EI3|PE192\_ARATH Peroxisome biogenesis protein 19-2 OS=Arabidopsis thaliana GN=PEX19-2 PE=1 SV=1//9.54472e-62  
XLOC\_2821-//  
XLOC\_2822-//  
XLOC\_2825-//  
XLOC\_2826-//  
XLOC\_2828sp|Q2QV94|EXOC5\_ORYSJ Exocyst complex component 5 OS>Oryza sativa subsp. japonica GN=SEC10 PE=2 SV=1//9.94192e-12  
XLOC\_2831sp|P52855|RLA1\_MAIZE 60S acidic ribosomal protein P1 OS=Zea mays GN=RPP1A PE=1 SV=1//1.18287e-23  
XLOC\_2833-//  
XLOC\_2833sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//7.53  
XLOC\_2839sp|Q9SJM6|SAP4\_ARATH Zinc finger A20 and AN1 domain-containing stress-associated protein 4 OS=Arabidopsis thaliana GN  
XLOC\_2840sp|Q9LNG5|PPP7L\_ARATH Serine/threonine-protein phosphatase 7 long form homolog OS=Arabidopsis thaliana GN=Atlg48120 P  
XLOC\_2841-//  
XLOC\_2843sp|Q8L4B2|NFYC9\_ARATH Nuclear transcription factor Y subunit C-9 OS=Arabidopsis thaliana GN=NFYC9 PE=2 SV=1//1.83554e  
XLOC\_2843sp|Q9XJ27|RR9\_ARATH 30S ribosomal protein S9, chloroplastic OS=Arabidopsis thaliana GN=RPS9 PE=2 SV=1//7.61447e-77  
XLOC\_2846-//  
XLOC\_2847sp|Q9FPW6|POB1\_ARATH BTB/POZ domain-containing protein POB1 OS=Arabidopsis thaliana GN=POB1 PE=2 SV=2//6.20491e-126  
XLOC\_2848sp|F4IQJ2|ELP5\_ARATH Elongator complex protein 5 OS=Arabidopsis thaliana GN=ELP5 PE=1 SV=1//8.48616e-15  
XLOC\_2849sp|Q91YT2|RN185\_MOUSE E3 ubiquitin-protein ligase RNF185 OS=Mus musculus GN=Rnf185 PE=2 SV=1//8.24175e-28  
XLOC\_2850-//

XLOC\_2851sp|Q8RWS9|CNGC5\_ARATH Probable cyclic nucleotide-gated ion channel 5 OS=Arabidopsis thaliana GN=CNGC5 PE=2 SV=1//2.21  
XLOC\_2856-/-  
XLOC\_2858sp|P49608|ACOC\_CUCMA Aconitate hydratase, cytoplasmic OS=Cucurbita maxima PE=2 SV=1//0  
XLOC\_2859sp|Q93VY3|NAC72\_ARATH NAC domain-containing protein 72 OS=Arabidopsis thaliana GN=NAC072 PE=2 SV=1//3.65344e-130  
XLOC\_2860-/-  
XLOC\_2861sp|O49169|EF1A\_MANES Elongation factor 1-alpha OS=Manihot esculenta GN=EF1 PE=3 SV=1//1.02615e-14  
XLOC\_2865-/-  
XLOC\_2866sp|Q9SXB4|Y1130\_ARATH G-type lectin S-receptor-like serine/threonine-protein kinase At1g11300 OS=Arabidopsis thaliana  
XLOC\_2867sp|Q9LP24|Y1571\_ARATH Probable leucine-rich repeat receptor-like protein kinase At1g35710 OS=Arabidopsis thaliana GN=  
XLOC\_2868sp|Q39002|TLC1\_ARATH ADP,ATP carrier protein 1, chloroplastic OS=Arabidopsis thaliana GN=AATP1 PE=1 SV=2//1.10318e-12  
XLOC\_2869-/-  
XLOC\_2871sp|P55217|METB\_ARATH Cystathionine gamma-synthase, chloroplastic OS=Arabidopsis thaliana GN=CGS1 PE=2 SV=3//4.16474e-  
XLOC\_2871sp|Q94A21|SPX4\_ARATH SPX domain-containing protein 4 OS=Arabidopsis thaliana GN=SPX4 PE=2 SV=1//5.72214e-75  
XLOC\_2871sp|Q9FKA5|Y5957\_ARATH Uncharacterized protein At5g39570 OS=Arabidopsis thaliana GN=At5g39570 PE=1 SV=1//2.12486e-09  
XLOC\_2871sp|P92958|KIN11\_ARATH SNF1-related protein kinase catalytic subunit alpha KIN11 OS=Arabidopsis thaliana GN=KIN11 PE=1  
XLOC\_2873sp|Q9P6K0|YLA3\_SCHPO Uncharacterized HTH La-type RNA-binding protein C1527.03 OS=Schizosaccharomyces pombe (strain 97  
XLOC\_2875-/-  
XLOC\_2879sp|Q0WVK7|PPR12\_ARATH Pentatricopeptide repeat-containing protein At1g05670, mitochondrial OS=Arabidopsis thaliana GN=  
XLOC\_2880sp|Q55CU8|RSC5\_DICDI Random slug protein 5 OS=Dictyostelium discoideum GN=rsc5 PE=2 SV=1//2.44438e-07  
XLOC\_2882sp|Q9ZW34|ENO3\_ARATH Cytosolic enolase 3 OS=Arabidopsis thaliana GN=ENO3 PE=2 SV=1//2.116e-33  
XLOC\_2883sp|Q5R580|ZRAB2\_PONAB Zinc finger Ran-binding domain-containing protein 2 OS=Pongo abelii GN=ZRANB2 PE=2 SV=1//3.3144  
XLOC\_2883sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.92  
XLOC\_2883sp|Q9SLH3|RGA\_ARATH DELLA protein RGA OS=Arabidopsis thaliana GN=RGA PE=1 SV=1//1.11065e-29  
XLOC\_2885-/-  
XLOC\_2884sp|Q9FJ41|GDL85\_ARATH GDSL esterase/lipase At5g45950 OS=Arabidopsis thaliana GN=At5g45950 PE=2 SV=1//2.4593e-18  
XLOC\_2886-/-  
XLOC\_2887sp|Q7TP47|HNRPQ\_RAT Heterogeneous nuclear ribonucleoprotein Q OS=Rattus norvegicus GN=Syncrip PE=2 SV=1//4.04802e-48  
XLOC\_2889sp|Q9LUJ5|EBP2\_ARATH Probable rRNA-processing protein EBP2 homolog OS=Arabidopsis thaliana GN=At3g22660 PE=2 SV=1//2.  
XLOC\_2890sp|Q9MON8|MZT1B\_ARATH Mitotic-spindle organizing protein 1B OS=Arabidopsis thaliana GN=At4g09550 PE=1 SV=1//6.05533e-  
XLOC\_2892-/-  
XLOC\_2892sp|Q86JJ0|TRM61\_DICDI tRNA (adenine(58)-N(1))-methyltransferase catalytic subunit trmt61a OS=Dictyostelium discoideum  
XLOC\_2894sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//2.41269e-24  
XLOC\_2894-/-  
XLOC\_2894sp|Q6NRP2|PSME4\_XENLA Proteasome activator complex subunit 4 OS=Xenopus laevis GN=psme4 PE=2 SV=1//1.64674e-25  
XLOC\_2895sp|O81635|ATK4\_ARATH Kinesin-4 OS=Arabidopsis thaliana GN=ATK4 PE=1 SV=2//4.03206e-65

XLOC\_2895sp|Q9LTH2|U76E2\_ARATH UDP-glycosyltransferase 76E2 OS=Arabidopsis thaliana GN=UGT76E2 PE=2 SV=1//1.64817e-118  
XLOC\_2895sp|Q9FM66|PLY21\_ARATH Putative pectate lyase 21 OS=Arabidopsis thaliana GN=At5g55720 PE=2 SV=1//2.79883e-159  
XLOC\_2895-//-  
XLOC\_2895-//-  
XLOC\_2896sp|Q9LK39|AAE16\_ARATH Probable acyl-activating enzyme 16, chloroplastic OS=Arabidopsis thaliana GN=AAE16 PE=2 SV=1//1  
XLOC\_2896-//-  
XLOC\_2896sp|Q9FMA3|PEX5\_ARATH Peroxisome biogenesis protein 5 OS=Arabidopsis thaliana GN=PEX5 PE=1 SV=1//8.29744e-28  
XLOC\_2896sp|P35135|UBC4\_SOLLC Ubiquitin-conjugating enzyme E2-17 kDa OS=Solanum lycopersicum PE=2 SV=1//2.52323e-99  
XLOC\_2896sp|Q84VX0|RFS1\_ARATH Probable galactinol--sucrose galactosyltransferase 1 OS=Arabidopsis thaliana GN=RFS1 PE=2 SV=1//  
XLOC\_2896sp|Q9LRR5|DRL21\_ARATH Putative disease resistance protein At3g14460 OS=Arabidopsis thaliana GN=At3g14460 PE=2 SV=1//4  
XLOC\_2896-//-  
XLOC\_2896sp|COLGR3|Y4265\_ARATH Probable LRR receptor-like serine/threonine-protein kinase At4g26540 OS=Arabidopsis thaliana GN  
XLOC\_2898sp|Q07488|BCB1\_ARATH Blue copper protein OS=Arabidopsis thaliana GN=BCB PE=1 SV=2//8.54821e-12  
XLOC\_2899sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.00  
XLOC\_2899sp|Q6AWT8|GG3\_ARATH Guanine nucleotide-binding protein subunit gamma 3 OS=Arabidopsis thaliana GN=GG3 PE=2 SV=1//7.44  
XLOC\_2900sp|Q9LZ16|NDS5B\_ARATH NADH dehydrogenase [ubiquinone] iron-sulfur protein 5-B OS=Arabidopsis thaliana GN=At3g62790 PE  
XLOC\_2901sp|Q9ZR09|LSM4\_FAGSY Probable U6 snRNA-associated Sm-like protein LSM4 OS=Fagus sylvatica GN=LSM4 PE=2 SV=1//6.85437e  
XLOC\_2902sp|Q55535|Y328\_SYNY3 Putative low molecular weight protein-tyrosine-phosphatase slr0328 OS=Synechocystis sp. (strain  
XLOC\_2902sp|F4HW04|DPOE1\_ARATH DNA polymerase epsilon catalytic subunit A OS=Arabidopsis thaliana GN=POL2A PE=1 SV=1//4.20715e  
XLOC\_2902sp|F4HW04|DPOE1\_ARATH DNA polymerase epsilon catalytic subunit A OS=Arabidopsis thaliana GN=POL2A PE=1 SV=1//8.05516e  
XLOC\_2903sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.31  
XLOC\_2904sp|Q4HXT6|PMP3\_GIBZE Plasma membrane proteolipid 3 OS=Gibberella zeae (strain PH-1 / ATCC MYA-4620 / FGSC 9075 / NRRL  
XLOC\_2906sp|Q700D2|JKD\_ARATH Zinc finger protein JACKDAW OS=Arabidopsis thaliana GN=JKD PE=1 SV=1//7.68935e-20  
XLOC\_2906sp|Q700D2|JKD\_ARATH Zinc finger protein JACKDAW OS=Arabidopsis thaliana GN=JKD PE=1 SV=1//5.28828e-09  
XLOC\_2910sp|Q9C9D0|SOT16\_ARATH Cytosolic sulfotransferase 16 OS=Arabidopsis thaliana GN=SOT16 PE=1 SV=1//1.12198e-43  
XLOC\_2910-//-  
XLOC\_2910sp|O49858|C82A3\_SOYBN Cytochrome P450 82A3 OS=Glycine max GN=CYP82A3 PE=2 SV=1//2.69748e-117  
XLOC\_2911-//-  
XLOC\_2911-//-  
XLOC\_2911sp|P86221|TBB4B\_MESAU Tubulin beta-4B chain (Fragments) OS=Mesocricetus auratus GN=TUBB4B PE=1 SV=1//8.94407e-27  
XLOC\_2912sp|O65154|KIWI\_ARATH RNA polymerase II transcriptional coactivator KIWI OS=Arabidopsis thaliana GN=KIWI PE=1 SV=1//1.  
XLOC\_2912sp|B1XJY4|MNMG\_SYNP2 tRNA uridine 5-carboxymethylaminomethyl modification enzyme MnmG OS=Synechococcus sp. (strain AI  
XLOC\_2912sp|P33083|AX6B\_SOYBN Auxin-induced protein 6B OS=Glycine max PE=2 SV=1//8.17368e-12  
XLOC\_2912-//-  
XLOC\_2913-//-

XLOC\_2915-/-  
XLOC\_2915sp|O23266|PP308\_ARATH Pentatricopeptide repeat-containing protein At4g14050, mitochondrial OS=Arabidopsis thaliana GN  
XLOC\_2917sp|Q8LB81|GDL79\_ARATH GDSL esterase/lipase At5g33370 OS=Arabidopsis thaliana GN=At5g33370 PE=2 SV=1//3.25153e-131  
XLOC\_2920sp|Q9NVW2|RNF12\_HUMAN E3 ubiquitin-protein ligase RLIM OS=Homo sapiens GN=RLIM PE=1 SV=3//1.04026e-13  
XLOC\_2922-/-  
XLOC\_2923sp|Q9SEC2|MSRA\_LACSA Peptide methionine sulfoxide reductase OS=Lactuca sativa PE=2 SV=1//1.95566e-58  
XLOC\_2923sp|Q9FGW9|GTE10\_ARATH Transcription factor GTE10 OS=Arabidopsis thaliana GN=GTE10 PE=1 SV=2//3.45142e-10  
XLOC\_2924sp|Q9FNP8|RS193\_ARATH 40S ribosomal protein S19-3 OS=Arabidopsis thaliana GN=RPS19C PE=2 SV=1//2.9596e-85  
XLOC\_2924sp|Q9SSQ4|FRS6\_ARATH Protein FAR1-RELATED SEQUENCE 6 OS=Arabidopsis thaliana GN=FRS6 PE=2 SV=1//2.02491e-07  
XLOC\_2924sp|Q84W92|ANM13\_ARATH Probable histone-arginine methyltransferase 1.3 OS=Arabidopsis thaliana GN=PRMT13 PE=2 SV=3//0  
XLOC\_2925-/-  
XLOC\_2926sp|POC2F6|RNHX1\_ARATH Putative ribonuclease H protein Atlg65750 OS=Arabidopsis thaliana GN=Atlg65750 PE=3 SV=1//4.478  
XLOC\_2928sp|O65837|LCYE\_SOLLC Lycopene epsilon cyclase, chloroplastic OS=Solanum lycopersicum GN=CRTL-E-1 PE=2 SV=1//3.35599e-  
XLOC\_2928-/-  
XLOC\_2930sp|Q9SZR0|CHMO\_ARATH Choline monooxygenase, chloroplastic OS=Arabidopsis thaliana GN=At4g29890 PE=2 SV=2//9.57009e-39  
XLOC\_2933-/-  
XLOC\_2934sp|Q24307|IAP2\_DROME Apoptosis 2 inhibitor OS=Drosophila melanogaster GN=Iap2 PE=2 SV=3//1.50706e-06  
XLOC\_2938sp|Q54SN4|RPAC1\_DICDI DNA-directed RNA polymerases I and III subunit rpa1 OS=Dictyostelium discoideum GN=polr1c PE=3  
XLOC\_2938sp|P49042|VPE\_RICCO Vacuolar-processing enzyme OS=Ricinus communis PE=1 SV=1//3.27082e-107  
XLOC\_2945-/-  
XLOC\_2946sp|O82201|AP4S\_ARATH AP-4 complex subunit sigma OS=Arabidopsis thaliana GN=At2g19790 PE=2 SV=1//1.5702e-42  
XLOC\_2948sp|Q05654|RTF21\_SCHPO Retrotransposable element Tf2 155 kDa protein type 1 OS=Schizosaccharomyces pombe (strain 972 /  
XLOC\_2948-/-  
XLOC\_2949-/-  
XLOC\_2949sp|Q8NI08|NCOA7\_HUMAN Nuclear receptor coactivator 7 OS=Homo sapiens GN=NCOA7 PE=1 SV=2//2.33925e-14  
XLOC\_2951sp|P93401|NU2M\_OENBE NADH-ubiquinone oxidoreductase chain 2 OS=Oenothera berteriana GN=ND2 PE=2 SV=2//4.24204e-13  
XLOC\_2954-/-  
XLOC\_2955-/-  
XLOC\_2957sp|Q8W486|Y1491\_ARATH Uncharacterized protein Atlg04910 OS=Arabidopsis thaliana GN=Atlg04910 PE=1 SV=1//6.87926e-09  
XLOC\_2957sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//1.20761e-79  
XLOC\_2957-/-  
XLOC\_2957sp|Q9FL92|WRK16\_ARATH Probable WRKY transcription factor 16 OS=Arabidopsis thaliana GN=WRKY16 PE=2 SV=1//5.78116e-28  
XLOC\_2957-/-  
XLOC\_2957-/-  
XLOC\_2958sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//5.55396e-27

XLOC\_2958-/-  
XLOC\_2958-/-  
XLOC\_2958sp|Q40392|TMVRN\_NICGU TMV resistance protein N OS=Nicotiana glutinosa GN=N PE=1 SV=1//5.07392e-44  
XLOC\_2962sp|081117|C94A1\_VICSA Cytochrome P450 94A1 OS=Vicia sativa GN=CYP94A1 PE=2 SV=2//3.00519e-156  
XLOC\_2962-/-  
XLOC\_2962sp|Q940Q3|ZTP29\_ARATH Zinc transporter ZTP29 OS=Arabidopsis thaliana GN=ZTP29 PE=2 SV=1//3.87363e-19  
XLOC\_2963sp|Q9FPW4|VIP2\_ARATH Probable NOT transcription complex subunit VIP2 OS=Arabidopsis thaliana GN=VIP2 PE=1 SV=2//9.646  
XLOC\_2963sp|022644|RL23A\_FRIAG 60S ribosomal protein L23A OS=Fritillaria agrestis GN=RPL23A PE=2 SV=1//1.80447e-61  
XLOC\_2963sp|Q9M2U1|DOF36\_ARATH Dof zinc finger protein DOF3.6 OS=Arabidopsis thaliana GN=DOF3.6 PE=1 SV=2//1.15619e-47  
XLOC\_2963sp|P21820|TPIS\_COPJA Triosephosphate isomerase, cytosolic OS=Coptis japonica PE=2 SV=1//3.27329e-14  
XLOC\_2963sp|Q9ZW09|LRK31\_ARATH Probable inactive L-type lectin-domain containing receptor kinase III.1 OS=Arabidopsis thaliana  
XLOC\_2964-/-  
XLOC\_2964sp|Q9LX66|HERK\_ARATH Receptor-like protein kinase HERK 1 OS=Arabidopsis thaliana GN=HERK1 PE=1 SV=1//0  
XLOC\_2964sp|P41247|PLPL4\_HUMAN Patatin-like phospholipase domain-containing protein 4 OS=Homo sapiens GN=PNPLA4 PE=1 SV=3//9.9  
XLOC\_2964sp|Q9M5L0|RL35\_EUPES 60S ribosomal protein L35 OS=Euphorbia esula GN=RPL35 PE=2 SV=1//4.13425e-73  
XLOC\_2964sp|Q9LZ46|H2A4\_ARATH Probable histone H2A.4 OS=Arabidopsis thaliana GN=At5g02560 PE=1 SV=1//1.98746e-51  
XLOC\_2964sp|Q9LZ46|H2A4\_ARATH Probable histone H2A.4 OS=Arabidopsis thaliana GN=At5g02560 PE=1 SV=1//5.08662e-52  
XLOC\_2964-/-  
XLOC\_2964sp|POCG89|H4\_SOYBN Histone H4 OS=Glycine max PE=3 SV=1//5.37575e-49  
XLOC\_2964-/-  
XLOC\_2965sp|Q652L2|HIRA\_ORYSJ Protein HIRA OS=Oryza sativa subsp. japonica GN=Os09g0567700 PE=2 SV=1//6.06823e-52  
XLOC\_2965sp|Q9FLB4|DRL31\_ARATH Putative disease resistance protein At5g05400 OS=Arabidopsis thaliana GN=At5g05400 PE=2 SV=1//1  
XLOC\_2966sp|Q42798|C93A1\_SOYBN Cytochrome P450 93A1 OS=Glycine max GN=CYP93A1 PE=2 SV=1//1.17858e-17  
XLOC\_2966sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.43  
XLOC\_2968sp|Q6AZB8|HARB1\_DANRE Putative nuclease HARB1 OS=Danio rerio GN=harbil PE=2 SV=1//1.24351e-28  
XLOC\_2970-/-  
XLOC\_2970-/-  
XLOC\_2970sp|064459|UGPA\_PYRKY UTP--glucose-1-phosphate uridylyltransferase OS=Pyrus pyrifolia PE=2 SV=1//2.22626e-24  
XLOC\_2971-/-  
XLOC\_2971sp|022193|PUB4\_ARATH U-box domain-containing protein 4 OS=Arabidopsis thaliana GN=PUB4 PE=1 SV=3//1.77151e-27  
XLOC\_2972sp|Q9LNV5|C3H4\_ARATH Zinc finger CCCH domain-containing protein 4 OS=Arabidopsis thaliana GN=At1g07360 PE=2 SV=1//1.5  
XLOC\_2973-/-  
XLOC\_2974sp|P57078|RIPK4\_HUMAN Receptor-interacting serine/threonine-protein kinase 4 OS=Homo sapiens GN=RIPK4 PE=1 SV=1//3.43  
XLOC\_2975-/-  
XLOC\_2977sp|Q8IZ81|ELMD2\_HUMAN ELMO domain-containing protein 2 OS=Homo sapiens GN=ELMOD2 PE=1 SV=1//1.41201e-13

XLOC\_2977-//  
XLOC\_2979sp|Q93W34|RP45C\_ARATH Polyadenylate-binding protein RBP45C OS=Arabidopsis thaliana GN=RBP45C PE=2 SV=1//3.36961e-41  
XLOC\_2982sp|Q55680|Y005\_SYNY3 Uncharacterized protein sll0005 OS=Synechocystis sp. (strain PCC 6803 / Kazusa) GN=sll0005 PE=3  
XLOC\_2983-//  
XLOC\_2986sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//6.38  
XLOC\_2986-//  
XLOC\_2988-//  
XLOC\_2991sp|Q6R8G7|PH013\_ARATH Phosphate transporter PH01 homolog 3 OS=Arabidopsis thaliana GN=PH01;H3 PE=2 SV=2//3.65096e-25  
XLOC\_2991-//  
XLOC\_2992sp|P33081|AX15A\_SOYBN Auxin-induced protein 15A OS=Glycine max PE=2 SV=1//1.11255e-15  
XLOC\_2994sp|Q9LSF8|C82G1\_ARATH Cytochrome P450 82G1 OS=Arabidopsis thaliana GN=CYP82G1 PE=1 SV=1//0  
XLOC\_2994sp|095628|CNOT4\_HUMAN CCR4-NOT transcription complex subunit 4 OS=Homo sapiens GN=CNOT4 PE=1 SV=3//2.73878e-45  
XLOC\_2995sp|Q9LSG3|GAUT8\_ARATH Galacturonosyltransferase 8 OS=Arabidopsis thaliana GN=GAUT8 PE=1 SV=1//0  
XLOC\_2995sp|Q09020|PR4\_PHAVU Wound-induced basic protein OS=Phaseolus vulgaris GN=PR4 PE=2 SV=1//9.38649e-08  
XLOC\_2995sp|Q6AWW5|Y5262\_ARATH Ankyrin repeat-containing protein At5g02620 OS=Arabidopsis thaliana GN=At5g02620 PE=1 SV=1//1.4  
XLOC\_2997sp|Q96522|PER45\_ARATH Peroxidase 45 OS=Arabidopsis thaliana GN=PER45 PE=1 SV=1//9.36598e-35  
XLOC\_2999sp|Q9XI05|PSB3A\_ARATH Proteasome subunit beta type-3-A OS=Arabidopsis thaliana GN=PBC1 PE=1 SV=2//5.79751e-77  
XLOC\_2999sp|Q84K11|PPP5\_SOLLC Serine/threonine-protein phosphatase 5 OS=Solanum lycopersicum GN=PP5 PE=1 SV=1//1.05374e-20  
XLOC\_3003sp|P0C1I7|CYP5\_RHI09 Peptidyl-prolyl cis-trans isomerase cyp5 OS=Rhizopus delemar (strain RA 99-880 / ATCC MYA-4621 /  
XLOC\_3003sp|Q40518|MSK1\_TOBAC Shaggy-related protein kinase NtK-1 OS=Nicotiana tabacum GN=NTK-1 PE=2 SV=1//3.97668e-23  
XLOC\_3003sp|Q6K846|IAA9\_ORYSJ Auxin-responsive protein IAA9 OS=Oryza sativa subsp. japonica GN=IAA9 PE=2 SV=1//1.8714e-13  
XLOC\_3004sp|P08770|TRA1\_MAIZE Putative AC transposase OS=Zea mays PE=2 SV=2//2.89065e-79  
XLOC\_3007-//  
XLOC\_3007-//  
XLOC\_3008sp|Q94B55|XB31\_ARATH Putative E3 ubiquitin-protein ligase XBAT31 OS=Arabidopsis thaliana GN=XBAT31 PE=2 SV=1//5.23344  
XLOC\_3009sp|Q8GWR3|QKIL5\_ARATH KH domain-containing protein Atlg09660 OS=Arabidopsis thaliana GN=Atlg09660 PE=2 SV=1//1.92419e  
XLOC\_3009sp|P00054|CYC\_SESIN Cytochrome c OS=Sesamum indicum PE=1 SV=1//5.63884e-51  
XLOC\_3009sp|Q9FYJ2|OSB4\_ARATH Protein OSB4, chloroplastic OS=Arabidopsis thaliana GN=OSB4 PE=2 SV=1//9.12265e-42  
XLOC\_3009-//  
XLOC\_3010sp|Q9SQ64|COR2\_PAPSO Non-functional NADPH-dependent codeinone reductase 2 OS=Papaver somniferum GN=COR2 PE=1 SV=1//1.  
XLOC\_3010sp|Q9SAD9|PPR40\_ARATH Pentatricopeptide repeat-containing protein Atlg13040, mitochondrial OS=Arabidopsis thaliana GN  
XLOC\_3010sp|P23548|GUN\_PAEPO Endoglucanase OS=Paenibacillus polymyxa PE=3 SV=2//1.11842e-07  
XLOC\_3010-//  
XLOC\_3010sp|Q7GB25|AB5C\_ARATH ABC transporter C family member 5 OS=Arabidopsis thaliana GN=ABCC5 PE=2 SV=2//1.15113e-20  
XLOC\_3010sp|Q3MG79|RSGA\_ANAVT Putative ribosome biogenesis GTPase RsgA OS=Anabaena variabilis (strain ATCC 29413 / PCC 7937) G

XLOC\_3011sp|Q0WPE9|NAT7\_ARATH Nucleobase-ascorbate transporter 7 OS=Arabidopsis thaliana GN=NAT7 PE=2 SV=2//2.43172e-89  
XLOC\_3011sp|Q8RWW0|ALE2\_ARATH Receptor-like serine/threonine-protein kinase ALE2 OS=Arabidopsis thaliana GN=ALE2 PE=1 SV=1//3.  
XLOC\_3011-//  
XLOC\_3011sp|Q8W4I4|POT6\_ARATH Potassium transporter 6 OS=Arabidopsis thaliana GN=POT6 PE=2 SV=1//0  
XLOC\_3011sp|080575|RISB\_ARATH 6,7-dimethyl-8-ribityllumazine synthase, chloroplastic OS=Arabidopsis thaliana GN=At2g44050 PE=2  
XLOC\_3011sp|Q8W486|Y1491\_ARATH Uncharacterized protein At1g04910 OS=Arabidopsis thaliana GN=At1g04910 PE=1 SV=1//9.36482e-65  
XLOC\_3011sp|P09886|HS21C\_PEA Small heat shock protein, chloroplastic OS=Pisum sativum GN=HSP21 PE=2 SV=1//5.50667e-35  
XLOC\_3011-//  
XLOC\_3011sp|Q9LU89|2A5N\_ARATH Serine/threonine protein phosphatase 2A 59 kDa regulatory subunit B&apos; eta isoform OS=Arabido  
XLOC\_3012-//  
XLOC\_3012sp|Q9SD34|C3H44\_ARATH Zinc finger CCCH domain-containing protein 44 OS=Arabidopsis thaliana GN=At3g51120 PE=2 SV=3//2  
XLOC\_3012sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//2.24  
XLOC\_3013sp|Q93W34|RP45C\_ARATH Polyadenylate-binding protein RBP45C OS=Arabidopsis thaliana GN=RBP45C PE=2 SV=1//1.89089e-47  
XLOC\_3014sp|P33543|TMKL1\_ARATH Putative kinase-like protein TMKL1 OS=Arabidopsis thaliana GN=TMKL1 PE=1 SV=1//3.56335e-56  
XLOC\_3015sp|Q9LNG5|PPP7L\_ARATH Serine/threonine-protein phosphatase 7 long form homolog OS=Arabidopsis thaliana GN=At1g48120 P  
XLOC\_3020-//  
XLOC\_3020sp|Q6J163|5NG4\_PINTA Auxin-induced protein 5NG4 OS=Pinus taeda PE=2 SV=1//2.53074e-19  
XLOC\_3020-//  
XLOC\_3020sp|Q93X17|SNAK2\_SOLTU Snakin-2 OS=Solanum tuberosum GN=SN2 PE=1 SV=1//6.93324e-21  
XLOC\_3020-//  
XLOC\_3020sp|Q7G8V2|ARR15\_ARATH Two-component response regulator ARR15 OS=Arabidopsis thaliana GN=ARR15 PE=1 SV=1//4.44715e-57  
XLOC\_3020sp|004922|GPX2\_ARATH Probable glutathione peroxidase 2 OS=Arabidopsis thaliana GN=GPX2 PE=1 SV=1//4.63717e-34  
XLOC\_3021sp|Q9FKE9|RHD32\_ARATH Protein ROOT HAIR DEFECTIVE 3 homolog 2 OS=Arabidopsis thaliana GN=At5g45160 PE=2 SV=1//3.61038  
XLOC\_3021sp|A2RVM0|TIC32\_ARATH Short-chain dehydrogenase TIC 32, chloroplastic OS=Arabidopsis thaliana GN=TIC32 PE=2 SV=1//5.1  
XLOC\_3021sp|Q9M3G7|ATM\_ARATH Serine/threonine-protein kinase ATM OS=Arabidopsis thaliana GN=ATM PE=2 SV=1//2.42332e-156  
XLOC\_3021sp|Q9M3G7|ATM\_ARATH Serine/threonine-protein kinase ATM OS=Arabidopsis thaliana GN=ATM PE=2 SV=1//2.53163e-154  
XLOC\_3021sp|Q9M3G7|ATM\_ARATH Serine/threonine-protein kinase ATM OS=Arabidopsis thaliana GN=ATM PE=2 SV=1//7.3981e-20  
XLOC\_3021sp|Q9M3G7|ATM\_ARATH Serine/threonine-protein kinase ATM OS=Arabidopsis thaliana GN=ATM PE=2 SV=1//3.02124e-68  
XLOC\_3023-//  
XLOC\_3024sp|Q6NWJ4|DNJC2\_DANRE DnaJ homolog subfamily C member 2 OS=Danio rerio GN=dnajc2 PE=2 SV=1//2.29888e-11  
XLOC\_3024sp|Q9CPW7|ZMAT2\_MOUSE Zinc finger matrin-type protein 2 OS=Mus musculus GN=Zmat2 PE=2 SV=1//5.16266e-40  
XLOC\_3025sp|Q8GWL2|LOR7\_ARATH Protein LURP-one-related 7 OS=Arabidopsis thaliana GN=At2g30270 PE=2 SV=1//1.4132e-36  
XLOC\_3025sp|COLGQ4|MRH1\_ARATH Probable LRR receptor-like serine/threonine-protein kinase MRH1 OS=Arabidopsis thaliana GN=MRH1  
XLOC\_3025sp|F4K1B1|RPAP2\_ARATH Putative RNA polymerase II subunit B1 CTD phosphatase RPAP2 homolog OS=Arabidopsis thaliana GN=  
XLOC\_3025sp|004834|SAR1A\_ARATH GTP-binding protein SAR1A OS=Arabidopsis thaliana GN=SAR1A PE=2 SV=1//1.40913e-112



XLOC\_3026sp|Q9SYJ2|GPAT3\_ARATH Probable glycerol-3-phosphate acyltransferase 3 OS=Arabidopsis thaliana GN=GPAT3 PE=2 SV=1//2.8  
XLOC\_3026sp|Q9ZPV5|NOC2L\_ARATH Nucleolar complex protein 2 homolog OS=Arabidopsis thaliana GN=At2g18220 PE=2 SV=2//1.44304e-31  
XLOC\_3026sp|P42211|ASPRX\_ORYSJ Aspartic proteinase OS=Oryza sativa subsp. japonica GN=RAP PE=2 SV=2//7.15719e-31  
XLOC\_3026-//-  
XLOC\_3026-//-  
XLOC\_3027-//-  
XLOC\_3028sp|Q99315|YG31B\_YEAST Transposon Ty3-G Gag-Pol polyprotein OS=Saccharomyces cerevisiae (strain ATCC 204508 / S288c) G  
XLOC\_3030-//-  
XLOC\_3032sp|O82204|RL281\_ARATH 60S ribosomal protein L28-1 OS=Arabidopsis thaliana GN=RPL28A PE=1 SV=1//9.29148e-66  
XLOC\_3032-//-  
XLOC\_3037sp|P21240|CPNB1\_ARATH Chaperonin 60 subunit beta 1, chloroplastic OS=Arabidopsis thaliana GN=CPN60B1 PE=1 SV=3//3.572  
XLOC\_3039sp|Q9SEI0|WER\_ARATH Transcription factor WER OS=Arabidopsis thaliana GN=WER PE=1 SV=1//7.23107e-49  
XLOC\_3039sp|Q0DJS1|TOR\_ORYSJ Serine/threonine-protein kinase TOR OS=Oryza sativa subsp. japonica GN=TOR PE=2 SV=3//2.33086e-53  
XLOC\_3040sp|Q84WF5|VAMPL\_ARATH Probable VAMP-like protein At1g33475 OS=Arabidopsis thaliana GN=At1g33475 PE=2 SV=1//2.26712e-6  
XLOC\_3041sp|O49169|EF1A\_MANES Elongation factor 1-alpha OS=Manihot esculenta GN=EF1 PE=3 SV=1//7.47641e-83  
XLOC\_3042-//-  
XLOC\_3042sp|Q17RB8|LONF1\_HUMAN LON peptidase N-terminal domain and RING finger protein 1 OS=Homo sapiens GN=LONRF1 PE=2 SV=2//  
XLOC\_3043-//-  
XLOC\_3043sp|Q552P9|Y5933\_DICDI Uncharacterized protein DDB\_G0275933 OS=Dictyostelium discoideum GN=DDB\_G0275933 PE=3 SV=1//9.3  
XLOC\_3043sp|Q8JFV4|HTR5A\_DANRE HEAT repeat-containing protein 5A OS=Danio rerio GN=heatr5a PE=2 SV=1//5.94844e-15  
XLOC\_3043sp|Q56ZZ7|PLST4\_ARATH Plastidic glucose transporter 4 OS=Arabidopsis thaliana GN=At5g16150 PE=1 SV=2//0  
XLOC\_3044sp|P10978|POLX\_TOBAC Retrovirus-related Pol polyprotein from transposon TNT 1-94 OS=Nicotiana tabacum PE=2 SV=1//1.08  
XLOC\_3044sp|P54769|TYDC2\_PAPSO Tyrosine/DOPA decarboxylase 2 OS=Papaver somniferum GN=TYDC2 PE=2 SV=1//0  
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XLOC\_3047-//-

. 22512e-15

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PE=3 SV=1//1. 033e-107

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SV=1//2. 14183e-08

SV=1//6. 62268e-17

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At1g07650 PE=1 SV=1//6. 10941e-55

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2204e-105

86128e-16

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07

6

54026e-67

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//9. 10969e-06

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07944e-10

GN=RPN9 PE=1 SV=1//1. 33228e-06

:174e-13

!At3g47570 PE=1 SV=1//5. 42214e-15

'=1//8. 8443e-07

7.86657e-10  
1.48611e-28

-88

3g03920 PE=2 SV=1//1.83341e-35  
353e-13  
0

0622 / NRRL Y-65) GN=GYP7 PE=3 SV=1//1.56911e-10  
N=TY3B-I PE=3 SV=2//5.2901e-38  
E=2 SV=2//1.22995e-20

810000 PE=2 SV=2//1.12546e-32  
841e-82

3  
1//1.36239e-62  
926e-23  
-16  
43) GN=gde1 PE=1 SV=1//1.32699e-06

V=1//1.15245e-10

E=1 SV=1//2.06111e-21

ATCC 24843) GN=Tf2-1 PE=2 SV=1//3.0132e-83

//4.44732e-26

=YAK1 PE=1 SV=1//2.68279e-10

PE=1 SV=1//1.78968e-14

ica GN=SPS3 PE=3 SV=1//2.34935e-15

;

'2 PE=1 SV=1//1.82791e-09  
.3e-06

'SPG PE=1 SV=1//0  
.28

'4.06219e-15  
.e-09

'9e-21  
'7e-40

' / S288c) GN=FAB1 PE=1 SV=3//8.71155e-22

0

'=1//2.75955e-06

'68e-10

1//1.81036e-67

At5g48740 PE=2 SV=1//3.55784e-61

90251e-52

396e-20

5e-13

31215e-22

87e-19

35446e-53

//2.55193e-06

/4.42685e-61



/1.12498e-86

c) GN=PIC2 PE=1 SV=1//1.7792e-07

u. japonica GN=OST4A PE=3 SV=1//2.06968e-12

V=1//2.32348e-55

e-24

i7

253e-36

r-38

'9.28652e-12

086e-33

81

!.7789e-43

'1.98625e-10

.718e-38

0896e-12

.944e-08

103e-40

164e-18

09994e-16

ALDH6B2 PE=2 SV=2//1.54699e-40

PE=2 SV=1//3.09237e-06

699e-110

V=3//1.42173e-57

2

ATCC 24843) GN=Tf2-1 PE=2 SV=1//2.31734e-96

G3 PE=1 SV=1//5.59628e-07

64e-13

80025e-175

SV=1//1.89859e-13

369e-10

At3g03070 PE=3 SV=1//3.34736e-23

1.65288e-49

e-09

667e-66

17843e-12

PE=1 SV=1//0

1//8.02087e-51

4.34922e-36

2357e-08

12

0G7 PE=1 SV=2//7.838e-112

GN=At4g27290 PE=2 SV=4//2.19393e-22

88c) GN=ZIM17 PE=1 SV=2//1.71561e-07  
.08294e-27

01e-33

M1 PE=1 SV=1//2.4238e-14  
30225e-173  
8e-07

017e-20

1 SV=2//7.01221e-80  
/6.20845e-07

3.33972e-12  
=2//6.5811e-124  
08e-18

/3.16105e-27

2//1.83555e-06

3.35183e-06

1 PE=1 SV=1//6.20852e-14

TCC 24843) GN=nat1 PE=2 SV=1//5.07446e-08

153e-08

31e-08

302e-26

//1.38696e-07

GN=At2g19130 PE=2 SV=1//3.57244e-10

8574e-25

113

N=dinG PE=3 SV=1//1.12528e-07

=1//1.10887e-67



1  
i. 01138e-27

'/2. 12622e-07

=1 SV=2//1. 64077e-82

95e-33

06e-19

063 PE=3 SV=1//1. 6892e-07

.07

08

0362e-40

. 94059e-110

49944e-09

183e-45

SV=1//0

PE=1 SV=1//3. 43521e-33

GN=RPN9 PE=1 SV=1//2. 29762e-06

3

165e-36

1374e-13

1289e-09

·10  
:05e-07

'=2//3.43234e-30  
ma GN=AAE15 PE=1 SV=1//4.62013e-08  
:338e-07

'2.8851e-80  
:054e-13

PE=2 SV=1//2.18012e-48

PE=1 SV=1//7.18405e-45

u. japonica GN=OST4A PE=3 SV=1//1.50194e-13

PE=1 SV=1//0

'46e-49

.5

'/0

ubsp. japonica GN=LOGL6 PE=2 SV=1//1.59898e-54

.10  
'9e-06  
i9e-64

l=At1g67720 PE=2 SV=1//8. 20937e-65  
.dopsis thaliana GN=B&apos;THETA PE=2 SV=2//4. 72219e-62

.3

'2e-36

.e-36

.4  
=2 SV=2//5. 20951e-09

l=At4g08850 PE=1 SV=3//2. 29343e-38  
iter GN=1(1)G0196 PE=1 SV=2//6. 11864e-35

0651e-25  
04e-15

0093e-39

077e-07  
0601e-09

01.5657e-91  
09.14337e-132

0869e-98

:2e-121

W=1//4.65851e-51

!0

:252e-16

i5e-11

PE=3 SV=1//3.03115e-09

04469e-47

i852e-114

ie-155

'669e-49

'5.85168e-26

'1.91513e-06

:90 PE=2 SV=1//2.73015e-32

e-25

N=TY3B-I PE=3 SV=2//3.17964e-51

;  
b. japonica GN=OST4A PE=3 SV=1//6.52255e-14

//8.23371e-10

;60510 PE=2 SV=1//0

01  
18817e-26

1//1.09758e-158

;70 PE=1 SV=1//4.39309e-53



534e-39  
//2. 54432e-18  
SV=1//0

1. 72927e-22

065e-76  
i. 75383e-22  
//4. 83479e-69

420 PE=3 SV=2//3. 51722e-06

//1. 06198e-18

11e-55  
599e-77

:-39

ana GN=BCCP2 PE=1 SV=1//1.04105e-19

'2.01934e-22

!.59737e-12

ina GN=AAE15 PE=1 SV=1//1.94462e-07

!//8.86e-51

:-08

!8e-44

'6.86116e-12

://2.73105e-19

SV=1//8.17176e-28

At4g18975 PE=2 SV=2//2.82043e-15

594e-10

/0

559e-46

77897e-16

·885e-13

·455e-42

|

·E=3 SV=1//1.29265e-24

·75e-58

|

·66e-60

·406e-51

· SV=1//6.4641e-66

·6e-25

·=ARC6 PE=1 SV=1//3.41494e-31

·82

·5396e-100

·.54416e-16

1.5119e-165

.58

1 SV=1//0

PE=1 SV=1//4.75021e-08

1.59499e-16

4g29120 PE=2 SV=1//1.12966e-34

ibsp. japonica GN=LOGL6 PE=2 SV=1//8.94697e-54

1/7.64215e-22

1 NBRC 0083 / IGC 2968) GN=ATG13 PE=3 SV=2//1.57398e-07

.K1 PE=2 SV=2//1.95183e-128

.K1 PE=2 SV=2//1.45803e-109

152e-14

1 SV=1//1.37635e-25

88863e-137

i

1.30716e-10

PE=1 SV=1//1.46008e-39

34

PE=2 SV=1//1.22105e-19

57e-11

09

375e-16

//5.50728e-62

53

.22001e-64

952e-09

17

GN=rsmI PE=3 SV=1//7.26617e-11

u. japonica GN=OST4A PE=3 SV=1//1.72759e-13

288e-19

GN=At3g03100 PE=1 SV=1//2.65371e-112

GN=CESA1 PE=2 SV=1//9.79728e-86

SV=1//2.15901e-111

ie-61

;

GN=At3g03100 PE=1 SV=1//6.33778e-13

ie-17

3

SV=1//4.7135e-38

SV=1//3.39e-27

GN=At2g26790 PE=2 SV=1//5.4794e-06

SV=1//0

SV=1 SV=1//1.22064e-15

SV=1 SV=1//1.22064e-15

1972 / ATCC 24843) GN=rpc10 PE=1 SV=2//8.95767e-15

20 PE=1 SV=1//2.18172e-09

478e-23

MCD4 PE=3 SV=1//5.58502e-13

93191e-84

=1//7.69274e-80



·15  
·83  
·GATC PE=3 SV=1//1.43321e-54

SV=2//1.98822e-31  
'3 PE=1 SV=1//5.32208e-143

·e-16  
//3.97898e-12

'612e-08

45908e-16  
'302e-12

·17

04e-09

'2.14466e-18

:29e-08

M1 PE=1 SV=1//4.193e-15

i.35538e-09

:MAE\_39970 PE=3 SV=1//9.30123e-17

'9.59097e-23

:5

:1//0

GN=PDS5 PE=1 SV=1//1.28751e-15

.21584e-76

:1//1.83962e-16

16  
4135e-16

1.91424e-11

132e-36

//2.60133e-06

382e-14

2

979e-42

7 / DSM 11121 / KW20 / Rd) GN=potD-A PE=3 SV=2//5.17495e-15

588e-27

V=1//6.29573e-71

MCD4 PE=3 SV=1//1.25185e-07

721e-09

V=1//2.37293e-28

=1//2.76995e-12

MCD4 PE=3 SV=1//1.00368e-10

45595e-10

[-At2g24230 PE=2 SV=1//4.09754e-15

.4e-18

869e-17

.29

:-17

//3.24651e-87

15e-52

:2

:55

ia GN=At5g57850 PE=2 SV=1//2.20824e-149

' FGSC 10173) GN=SNOG\_03055 PE=3 SV=1//1.50605e-14

) GN=guaA PE=3 SV=1//2.02006e-44

:1

'E=2 SV=1//2.70399e-16

'/2.49727e-42

'/3.58295e-20

:114 PE=3 SV=1//3.24875e-11

:78e-24

:7820 PE=2 SV=1//0

'=1//1.43995e-15

31008e-18

'/3.43444e-54

ie-23

!. 02211e-135

i993e-28

i209e-75

'9. 3227e-48

'DK PE=1 SV=1//2. 92193e-37

.27

.66

!225e-14

!.

!V=1//4. 94665e-33

1//1.51976e-20

;

'0

:9

,

6062e-118



'=2//0

/ JCM 10044 / NBRC 100330 / Delta H) GN=MTH\_273 PE=3 SV=1//3.28469e-29

i008e-52

IG3 PE=1 SV=1//1.49528e-81

:202e-13

:882e-25

'674e-28

'=1//1.06413e-70

//7.14818e-16

SV=1//3.81987e-37

:88e-19

'E=2 SV=1//6.50794e-32

73295e-24

) GN=creC PE=3 SV=1//1.07653e-60  
259e-28

7e-27

871e-42

=1//2.16083e-49

i

073e-07

g0242700 PE=2 SV=2//7.00869e-08  
g0242700 PE=2 SV=2//1.03847e-46

SV=1//2.09608e-19

/4.53449e-33  
351e-31  
rA PE=1 SV=1//1.34231e-18  
31860 PE=2 SV=1//5.18283e-22

85e-35

6.30331e-34

=1//5.17342e-77

SV=2//3.10605e-34

//2.99011e-36

2819e-81

4e-78

SV=2//9.60975e-10

237e-152

534e-22

16e-29

=1 SV=1//7.09107e-36

=1 SV=1//6.88527e-19

09

'=1//8.73942e-85

18244e-14

'E=2 SV=1//1.46834e-26

93431e-12

!26e-19

IA PE=3 SV=1//2.36638e-20  
IG5 PE=1 SV=1//2.97587e-106

I=SAP1 PE=1 SV=1//1.52294e-08

I9

:2 SV=2//4.0745e-53

'3.04227e-10

'=1//0

l=At4g14190 PE=2 SV=2//7.2494e-08

025e-19

le-08

.6

'=1//9.01935e-11

[-At4g36180 PE=1 SV=1//5.86173e-07

'=1//7.69861e-06

:1//1.18081e-21

;V=1//4.38504e-24

`C PE=1 SV=2//7.73476e-29

!-95

!7e-07

'=1//4.6824e-17



1e-06

7344 / JCM 9153 / C-125) GN=BH0283 PE=3 SV=1//2.09708e-39

88299e-72

1e-08

SV=2//9.75722e-146

//2.78726e-39

! SV=1//5.01436e-13

SV=2//1.2929e-55

.378e-31

089 / DSM 1224) GN=guaAA PE=3 SV=1//1.29738e-08

7e-12

090 PE=2 SV=1//9.29779e-89

r=1//5.24424e-82

0724e-27

070 PE=1 SV=1//1.53335e-52

.11

;

0N=TY3B-G PE=1 SV=3//4.24438e-116

01468e-30

0=At4g18975 PE=2 SV=2//1.921e-15

//2.698e-146

At5g26760 PE=2 SV=1//5.72345e-58  
37

//3.30855e-48

1//1.63058e-24

V=3//2.70455e-58

563e-35

V=1//3.56323e-27

289e-28

o. japonica GN=OST4A PE=3 SV=1//4.58587e-14

8e-77

15

1//1.37582e-19

0

1972 / ATCC 24843) GN=SPAP8A3.11c PE=2 SV=1//1.06359e-11

SV=2//8.70359e-135

//1.46256e-06

;

.iana GN=At1g17230 PE=2 SV=2//3.33773e-07  
W=1//1.37431e-62

/1.73941e-44

2

8  
-21  
-13

e-164

-25  
=At5g10290 PE=1 SV=1//5.86947e-48  
=At5g10290 PE=1 SV=1//1.89088e-15

PE=2 SV=1//3.87709e-83

:-58

T1 PE=1 SV=1//1.02678e-34

.843) GN=SPAC25G10.01 PE=1 SV=1//1.40009e-06

://8.63797e-42

. SV=1//1.71099e-175

:4337e-32

' NBRC 13307 / NCIMB 12785 / NRRL 3585 / VKM Ac-602) GN=cefD PE=1 SV=3//1.3162e-23

'E=2 SV=2//2.92379e-78

' ATCC 24843) GN=Tf2-7 PE=2 SV=1//1.96525e-13  
//0

95e-135

44

nkrd44 PE=2 SV=1//5.61998e-08

SV=1//3.82802e-24  
3e-09

60510 PE=2 SV=1//5.49773e-164  
363e-24

94  
i.90726e-53

f=At2g31400 PE=2 SV=1//0

3.90311e-18



591e-13

51e-47

5e-14

ATCC 24843) GN=Tf2-1 PE=2 SV=1//1.69567e-06

ina GN=SDH2-3 PE=2 SV=1//1.8068e-38

129e-16

haliana GN=At5g05200 PE=1 SV=1//1.1595e-08  
PE=3 SV=1//8.05901e-30

:=2 SV=1//7.02769e-45

i803e-14

l51e-58

:=aI2 PE=1 SV=2//4.60338e-10  
:-09

SV=2//2.88906e-46  
:-49

41e-34  
753e-25  
-72

ie-10

-60

-27

ie-23

:2 SV=1//4. 3643e-133

-41

i2e-21

.2

.8e-21

://1.10916e-08

SV=1//1.7015e-28

liana GN=At2g25790 PE=1 SV=1//2.25355e-10  
'4.19134e-16  
'11

liscoideum GN=captC PE=2 SV=1//1.98908e-43

41e-07

:2//1.76905e-10

i2

PE=1 SV=1//1.65493e-09

e-134

.1e-07

e-57

i207e-146

i.08731e-79

OG3 PE=1 SV=1//3.15719e-114

.3e-75

i7

e-47

i

SV=1//1.78796e-08

17e-47

0

1.89056e-54

1

1748e-24

3.49396e-12

5.63327e-14

i

.64e-55

066e-98

100828) GN=dnaJ PE=3 SV=1//7.23361e-08

liana GN=At5g48380 PE=1 SV=1//8.32888e-28

SV=2//0

0G5 PE=1 SV=1//1.31399e-98

0

. SV=2//9. 24908e-124

'79e-16

[-PGR3 PE=1 SV=1//6. 68992e-08

//3. 03245e-07

'5. 07456e-18

SV=1//3. 89071e-13

na GN=SDH2-2 PE=1 SV=2//3. 2638e-171

PE=1 SV=1//0

:208e-40

927e-34

na GN=SDH2-2 PE=1 SV=2//1. 52066e-169

59767e-18

:278e-27



1499e-34

1824e-11

1/5.42706e-28

196e-104

14e-28

.09585e-124

16

1-22

1V=2//5.13283e-10

1e-14

|  
//3.18399e-11

SV=1//1.11096e-07

|=At3g04760 PE=2 SV=1//8.72649e-07  
|=2 SV=2//1.19326e-105

'3.67591e-18

'3e-11  
'62e-06  
'215e-103

36104e-112

7/8.76952e-06

1e-13

7/2.97053e-46

8.26983e-07

95e-07

853e-25

3 PE=1 SV=1//6.13075e-146

222e-58

53775e-06

'/7. 41992e-40

i

:1 SV=1//4. 62056e-87

//1. 94777e-38

'/3. 09475e-15

06811e-32

!165e-17

0G5 PE=1 SV=1//2. 39716e-104

SV=1//2. 01269e-14

i155e-29

0810000 PE=2 SV=2//2. 33432e-16

;  
PE=1 SV=1//1. 55977e-41

22801e-12

i591e-28

o. japonica GN=OST4A PE=3 SV=1//6.51994e-13

·11

·122

SV=2//1.37337e-56

16

:2 SV=1//1.57568e-37

:77e-39

:N=TY3B-I PE=3 SV=2//1.28299e-15

1  
:227e-17

PE=1 SV=1//1.18312e-28

u. japonica GN=OST4A PE=3 SV=1//1.54463e-14

38e-08

33552e-10

.32341e-16

093e-15

013e-10

77668e-19

309e-79



'=1//1. 21392e-06

'2e-08  
'994e-28

'ie-08  
';

'236e-21

'684e-14

'6

'-42

'2. 66755e-10  
'9028e-31

'=1//5.45515e-13  
.1e-77  
;V=1//4.28802e-29  
  
SV=1//1.02108e-19

'=1//0

:1//9.02278e-32  
'674e-23

36517e-21  
'V=1//3.05745e-38

37262e-102  
.93764e-10  
'3019e-21

;  
0034e-12

499e-56

958e-11

PE=1 SV=1//3.98806e-76

//1.6507e-55

897e-53

=SAP4 PE=1 SV=1//2.21952e-47

E=2 SV=1//3.46471e-09

:-68

238e-29

↓ GN=At1g11300 PE=2 SV=1//8.28914e-30

↓ At1g35710 PE=2 SV=1//4.82326e-14

↓ 1

↓ 10

↓ SV=1//6.11237e-24

↓ 2 / ATCC 24843) GN=SPAC1527.03 PE=1 SV=1//2.82352e-09

↓ At1g05670 PE=2 SV=1//1.05408e-06

↓ 9e-06

↓ 188e-46

↓ 93083e-42

↓ 12

↓ GN=trmt61a PE=1 SV=1//3.21666e-12

. 44612e-08

'4. 58546e-12

. 75752e-88

l=At4g26540 PE=1 SV=1//1. 95997e-11

l491e-41

.585e-13

l=2 SV=1//7. 78524e-45

l=-59

PCC 6803 / Kazusa) GN=slr0328 PE=3 SV=1//6. 50287e-23

l=-21

l=-45

.474e-38

. 31084) GN=PMP3 PE=3 SV=2//2. 60285e-07

28375e-14

\CC 27264 / PCC 7002 / PR-6) GN=mmG PE=3 SV=1//1. 80712e-38

[-PCMP-H13 PE=2 SV=3//3.65259e-28

06e-06  
26

|

| SV=1//1.60662e-14

' ATCC 24843) GN=Tf2-1 PE=2 SV=1//1.59854e-85

6e-30

GN=LECRK31 PE=2 SV=1//1.60994e-19

3927e-14

.00028e-13

519e-19

6321e-34

914e-08

SV=1//3.26343e-11

109e-07

444e-178

FGSC 9543 / NRRL 43880) GN=cyp5 PE=3 SV=1//2.01412e-25

e-12

29

03263e-77

At1g13040 PE=2 SV=1//4.99596e-16

N=rsgA PE=3 SV=1//7.97875e-52



10699e-09

: SV=1//9.39434e-13

opsis thaliana GN=B&apos;ETA PE=2 SV=1//0

.19295e-15

.15e-34

PE=2 SV=1//3.50476e-11

e-23

0625e-06

PE=2 SV=1//1.55782e-06

:At5g26760 PE=2 SV=1//4.48922e-18

6495e-170

N=TY3B-G PE=1 SV=3//8. 51343e-114

93e-26

;  
i2

8. 60055e-09

9433e-09

27e-48