

	*	20	*	40	*	60	*	80	*	100	*	120	*	140	*	160					
At5g39790	:	-----MGCVPRIEFGC		SSQLTLSWNLR	WNL-----	CRLNTISHFQKLPYPLVAST		RKHY-KNSLL		LKRLVGVGTEESS		-----LSEDL		LD-ESLSRPLTSD		ELKSLIDT	ERSKLVKKLSEANQNRFLKR : 117				
Hciliaris	:	-----MSTSIQGLSSCQRGNRHISWC		-YHYNL-----		APLSLRKHFVKLFHCMKNG		RHYA-HSRVL		C-----FPTTLE		EEFSSMQSKNYSKDDKYASDL		FSEOVSE		-----QLVDS	DQLKSLTADAERAKLKKLSEANQHNRFLKR : 125				
Rraphanist	:	-----MNHFCITIGGCVPIMEFGFLRHCLEQNLT		-FSWNLK-----		ASSSATISHLQRLPLSMVVAS		TRNHYYKNSLL		LKRLVVRVGSTEEHS		-----LSEDSL		N-DSVSRPLTSEEL		KSLLDNQ	RSKLVKKLSEANQNRFLKR : 129				
Gmax	:	-----MEISIAARSHLETQGIFF		SNVSRITIGWE-STKKLPCNV		ASQSSRWDFHRLASSHQAFT		AVYPRRPFT		CRANSMPISLQESASYGDN		SIEDD-----		PSTDL		LEE-ETLAKPPTSE	QIMALLADTQAKLTKKLSEANRONRFLKR : 137				
Ptrichocar	:	-----MLDVESIHKL		PYHVFGC		IKPSNLRFAHSYWGSA		-----RKNW-MSNV		LWRTYTMPVSL		ESSSEQPEDYS		DDGS-----		SSDELPE-EPLDQ	SLSSDELKALLDSQRKNTKKLSEANQNRFLKR : 117				
Cclementin	:	-----MEIGTARGCLDKTVSYFS		RNLSELGWK-NARKVSYPV		-----AAAWNLR		TSYQKLAHEHIVSAR-IR		RHHRSSRL		LRAYSMPVSAADRAEDAED		-----DSEDS		PQ-RILSQPL	SNDELSLLADSERKKLMTKLSEANQNRFLKR : 136				
Csinensis	:	-----MEIGTARGCLDKTVSYFS		RNLSELGWK-NARKVSYPV		-----AAAWNLR		TSYQKLAHEHIVSAR-IR		RHHRSSRL		LRAYSMPVSAADRAEDAED		-----DSEDS		PQ-RILSQPL	SNDELSLLADSERKKLMTKLSEANQNRFLKR : 136				
Toficinale	:	--MECHTIS--TSTQGL		-LSGQCRNKHISWILWP-NRSS		-----SLNSHKFQYLKNSIC		-----YPHWRT		CIPITLH--		EEYSSIH		SKKNS-----		NSDEL	-----QPIDNDQ	LAMALLADTERAKLRRKLSEANQHNRFLKR : 117			
Osativa	:	--MECLTTSF-TRNPGREYNLICP		SEALSEKQRI-QRRVLCYFP		-----ASTNSRR		CRKFTTMAYPVSP		PIAGRRS--		NWRSFAAS		LNLEDGPASSD		STSSPSEQ	TSDDGGEVYGDPS	ENLNS--RKLKSD	DELKSLADSERSKLKKLSEANQNRFLKR : 146		
Hvulgare	:	--MECLTAGFAARSVGREYNFVCP		KPVGEKQWV-PGRVLCYFT		-----AHTNSSR		CCKVATGVCPI		SPVVGRRS--		RWRSFAAS		LNLENGPAPSS		STLSSSGQ	-----TSE	-----QP-TSAEL	KSLADKERSKLLRKLSEANQHNRFLKR : 132		
Graimondii	:	-----		MSNQRLAY-----		-----LSIDSSR		KQH-----		RSPI-----		VCKTFATHAGLE		SSSLQSEDS		SFTEDERT	-----SEDSPE	-QLLAKPLSSEEL	KSLADSERAKLTKKLSEANQNRFLKR : 97		
Mtruncatul	:	----MMEIS--IARCH		EAQGIFF		NTLRTLGRE-NSQKPCNV		-----ASLH		SRDLHLV		LASSYQTLTAMYRRL		----FFC		RTQSMQTGLE	BYASLQSRDNP	NNDIDPSI--DSEDE	IL-----SQPHT	SEQIKALLADTERAKVTKKLSEANQNRFLKR : 140	
Pglauca	:	MRMESICLMTGNGRSS		PKVGWWS		ISQPQKQEGKSTHEN		NSMYICKSATRVGRCKWPLVVCIRRF		PKQEMAGFLAMDYHTVARRS		LRSFATT		VGSEK-AMKLSE		EYTDISNG	----ASSOL	SR-NYFGQ	PVDRTELES	MRVDDIRAKLIRKLSEANQHNRFLKR : 161	
Ptaeda	:	MRMESICLMTGNGRSS		PKVGWWS		ISQPPRQEGNGSHKN		NSMSICKSATRVGSCKWPIIVCIRRY		PKQEMAEFLAMDYNTVARRS		LRSFATT		VGSEK-AMELSE		EYTDNSNG	----ASSOF	SR-SYFGQ	PVDS	TKLES	MRADNVRAKLIRKLSEANQHNRFLKR : 161
Creinhardt	:	-----MLSG		LGRAAPAAPSSRNQIAPQTPRAP		-----LRASG		QIHAQPTTSANTVTSEAR		SAG-----		SASTSGRSL		SAKDKLAM		DKAKEKRL	LEAL-----	TDDGYN	PKYTGA	PGIVDVRL	YHAEVESQKRMSTKLSEANQMTLVER : 131

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	*	180	*	200	*	220	*	240	*	260	*	280	*	300	*	320	*											
At5g39790	:	QLKTOEHETINIKTELALMELE		VOALVKLAEE		IANLGIPOGSRKISGKYI		QSHLSRLDAVQKKMKEQIKG		VEAASKEVHVFWIGMAES		VQVMGSFDGWSQREDLSPE		-----YSAL		FTKFS	TTLFLRPGRYEMKFLVDGEWQISPEFPTS	SGEGLME-NNVL	VVE---	: 277								
Hciliaris	:	QLTVREEAFAQFKSELAA		TELEIQALISMAKE		IASYGIPAGSRKINGKYIQSL		LQLQGMQEKLLKQIKD		VELAQSKEVTL		SWSGMAESVQVMGSFDGWSHGEYL		SAE-----		YTGSY	T-----			: 240								
Rraphanist	:	QLKTOEEEEITNIKSELAIM		ELVQALVLAEE		IANLGIPOGSRKISGKYI		QSHLSRLDAVHNKLEQIKD		VEAASKEVHVFWIGMAES		VQVMGSFDGWSQPEDLSPE		-----YTAS		FTKFS	TTLMLRPGRYEMKFLVDGEWQISRE	FPTS	SGEGLME-NNVL	VVE---	: 289							
Gmax	:	QLNVTEADLVKFKNELAVME		LEIQALRLAEE		IAQCGIPEGSRKINGKYI		SHSLARLEAVNEQLKQIKD		VDAAQSKEVS		VFWGMAESVQVMGSFDGWSQGEHLSPE		-----YTGSY		TRFSTTL	LLRPGRYEIKFLVDGEWHLSP	EFPII	IGEGLTK-NNLL	VVE---	: 297							
Ptrichocar	:	QLHYMEDALVNFKSELAVME		LEIQALVTLSE		ETIAQYEIPEGSRKINGKYV		QSHLSRLRVLQEKLEQIKD		VDAAQSKEVSL		FWCGMAESVQVMGSFDGWSQGEHLSPE		-----YDGS		FTKFS	SATMLRPGRYEIKFLVDGEWQLSP	EYPTI	IGEGLTE-NNLL	VVE---	: 277							
Cclementin	:	QLHIKEDALVDFKSELAVME		LEQALVSLAEE		IAQSGIPEGSRKINGKFI		QSHLSRLLEAVHEKLKEQIKD		VIAVQSKEVPL		FWCGMAQSVQVMGTFDGSQGEHLSPE		-----YNGS		FTKFS	TTLMLRPGRYEIKFLIDGEWQLSP	KFPQ	FGEGLME-NYLL	VVE---	: 296							
Csinensis	:	QLHIKEDALVDFKSELAVME		LEQALVSLAEE		IAQSGIPEGSRKINGKFI		QSHLSRLLEAVHEKLKEQIKD		VIAVQSKEVPL		FWCGMAQSVQVMGTFDGSQGEHLSPE		-----YNGS		FTKFS	TTLMLRPGRYEIKFLIDGEWQLSP	EFPTV	GEGLMK-NNLL	VVE---	: 296							
Toficinale	:	QLLVREDSLAQFKSELAT		TELEIQGLLNMAKE		IVGYGIPGSRKINGKYIQSL		LQLQGVQEKLLKQIKD		VELAQSKEVWLYW		SGMAESVQVMGSFDGWSHGEDLSAE		-----YTGSY		TRFSTX	MLRPGRYEIKFLVDGEWHLSP				: 259							
Osativa	:	QLQMKDNDVVKFKSELAVME		LEQALVALAEE		IANFDPGSRKINGKYIQSHL		TRLLEAVHDKVMEQIKD		VDLSKHQEIS		VFVGIAENVQIMGSFDGWSQGEAMS		ME-----		YSGYQ	ARFSATLNL	RPGRYEIKFLVDGEWRLSL	EYPID	GEGLSMQ-NNIL	VVN---	: 306						
Hvulgare	:	QSQIKDDAAVKFRSELAVLE		LELQALVGLAEE		IANFDPGSRKVN		GYIQSHLSRLLEAVHDKVMVQIKD		IESLRPREIAVHVGMAEN		VQIMGSFDGWSHGEAMS		RE-----		YSGDY	ARFSATLKL	RPGSYEIKFLVDGEWKL	SEYPI	TGEGLTQ-NNKL	AVE---	: 292						
Graimondii	:	QLYMKEEALVNFKSELAVME		LEIQALVLAEE		ISKAGIPEGSRKINGRYIQSHL		HTRLLEAVLEKLKEQIKD		VDVAVQSKEIPL		FWCGMAESVQVMGSFDGWSQGEHLSPE		-----FTGS		FTTFTS	TTLFLRPGRYEIKFLVDGEWHL				: 237							
Mtruncatul	:	QLYIKEDALVNFKSELAVLE		EQALRLAEE		IAKSGIPEGSRKINGKYI		HTHLVTRLKAVHEQLNEQIKD		VDAAQSKEVS		VFWGMAESVQVMGSFDGWSQGEHLSPE		-----YTGSY		TRFSTTL	MLRPGRYEIKFLVDGEWHL	STEL	PVTGEGLTK-NNLL	VVE---	: 300							
Pglauca	:	QLHDKEQTLNKKYNELAVME		LEQALITLAAE		VARYGIKDGSRKINGRYI		SHLALRLLEFHEKLLQIKQ		VDGMC		PREVALVWYGMAED		VKVMGSFDGWI		HGEQMSPE	-----STASV	TKFSTTL	KL	RPGRYEIKFLVDGEWQLSP	ELQIL	GEGPLA-NNLL	VVE---	: 321				
Ptaeda	:	QLHDKEKSLNKKYNELAVME		LEQALVNLAAE		VARYGIMDGSRKVN		GRYIHSALRLLELHQLKLE		QKGVDAIC		FREVPLVWYGMAED		VKVMGSFDGWI		HGEQMSPE	-----STAS	FTKFS	TTLKL	RPGRYEIKFLVDGEWQLSP	ELQIL	GEGPLA-NNLL	VVE---	: 321				
Creinhardt	:	RMEETTKDLQDAAAF		LKKVAMEFGTTSRL		VESTAAA-VRF		GVDKEDAVAKLVK		CERLEALEKT		VQDQRAAF		AKRVPKKVPV		AWGVASEV	KLMGDFDS	WTRGFEL	SAANID	SDGVIKT	FEAEVPL	L	RPGRYAKFLVDGGR	RLASDWPTENDEL	GETNNIL	VQ	PMP	: 297

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