




	150	160	170	180	190	200	210	220												
Glyma.01G180400	FMDVKTARA	EVG	VEALSWSEKLG	NVSLMVRYQRNKKGCE	FANLTAS	RYGGNQLWAGVT	EVAPRVVVEEWVK	EKKFYVREN	NTC	224										
Glyma.02G060800	LEAHNQARA	AVG	VEPLRWSEQLAN	VTSKRLARYQRDKL	GCEFANLSTG	KYCANQLLAWGT	AVTPRMAVEEWVK	QKQFYNHAD	NSC	121										
Glyma.16G143300	LEAHNQARA	AVG	VEPLRWSEQVAN	VTSKRLARYQVRKT	GCCFANLTAG	KYCANQLLARG	SAAVTPRMAVEEWVK	QKQFYNHAD	NSC	123										
Glyma.10G047000	LHAHNWIRK	QYN	LPEYTWDEKL	ASYARGYLMQRYED	CKLVHS	NSNYGENVFWGKKL	HWSPSDATYYWY	QEKQWYNFQ	TLS	219										
Glyma.13G252600	LDVHNQARA	EVG	VGPLSWNHTLQ	AYAQSYANKRIPD	CNLEHS	MGPFGENISEGYA	EMKGSDAVKFWL	TEKPYDHH	SNA	112										
Glyma.15G062300	LDVHNQARA	EVG	VGPLSWNHTLQ	AYAQRYANERIPD	CNLEHS	MGPFGENLAEGYG	EMKGSDAVKFWL	TEKPYDHY	SNA	112										
Glyma.07G186400	FNVHNAARS	QVG	VPPLTWDN	TLAFAQSYANLRN	VIANLSTH		ADHTVRAWVNE	KANYDYN	SNT	122										
Glyma.07G186300	LDAHNAARA	EVG	VEPLAWDDT	VAAAYAAQYADS	RIKECQV	VHS	QGPYGENLVAS	PGDVS	SGTDAVKMW	VAEKANYD	HKANKC	110								
Glyma.07G186200	LNGQNDARS	DVDVQVP	LPPLVWN	NNTLAHEYAQDY	AKQRKSN	CQLVHS	NGPYGENLAG	STGDIS	CANAVKL	WVDEK	PYYDRNS	NSC	116							
Glyma.15G062700	VNAHNAARS	QVG	VPNI	VWDDTVA	AAFAQNYANQR	KGDC	CKLVHS	GGDG	KYGENLAG	STGNL	SGTNAVKL	WVDEK	SKYDYN	SNT	116					
Glyma.15G062500	VNAHNAARS	QVG	VPNI	VWDDTVA	AAFAQNYANQR	KGDC	CKLVHS	GGDG	KYGENLAG	STGNL	SGTNAVKL	WVDEK	SKYDYN	SNT	115					
Glyma.15G062900	VDAHNAAR	SEVG	VPDLAW	DDSVAAAY	AENYANQR	KGDC	CAL	IHS	GG	EYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	ANYD	HD	NSC	86	
Glyma.13G252400	VNAHNAARA	EVGSQSPRQ	TVIVPS	LAWDDT	VAAAYAESY	ANQRKGD	CQL	IHS	GG	EYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	SNYD	YD	NSC	123	
Glyma.13G252300	VNAHNAARA	EVGSQSPRQ	TVIVPS	LAWDDT	VAAAYAESY	ANQRKGD	CQL	IHS	GG	EYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	SNYD	YD	NSC	123	
Glyma.13G251700	VNAHNAARA	EVGSQSPRQ	TVIVPS	LAWDDT	VAAAYAESY	ANQRKGD	CQL	IHS	GG	EYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	SNYD	YD	NSC	123	
Glyma.13G252000	VNAHNAARA	EVGSQSPRQ	TVIVPS	LAWDDT	VAAAYAESY	ANQRKGD	CQL	IHS	GG	EYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	SNYD	YD	NSC	123	
Glyma.13G251600	VNAHNAARA	EVGSQSPRQ	TVIVPS	LAWDDT	VAAAYAESY	ANQRKGD	CQL	IHS	GG	EYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	SNYD	YD	NSC	123	
Glyma.15G062800	VNAHNAARA	EVSSQSPRAN	VIVPS	LAWDDT	VAAAYAESY	ANQRKGD	CAL	IHS	GG	KYGENI	AMSTG	ELSG	TD	AVKM	WVDEK	ANYD	YN	NSC	123	
Glyma.13G252500	VNAHNAAR	SEVG	VQNLAW	DDTVA	AAFAQNYANQR	KGDC	CQ												70	
Glyma.15G062400	VNAHNAAR	SEVG	VQNLAW	DDTVA	AAFAQNYANQR	KGDC	CQL	IHS	GGG	QYGENI	LAMSTG	DL	SGTD	AVKL	WVDEK	SNYD	YN	NSC	115	
Glyma.13G094200	LIPQNAARA	AVLR	LRPLVW	DSKL	AHYAQWYANQR	RND	CA	LEHS	NG	PYGENI	FWGSGT	GWKPAQ	AVSAW	VEERQ	WYNY	WH	NSC	124		
Glyma.17G066000	LIPQNAARA	AVLR	LRPLVW	DSKL	AHYAQWYANQR	RND	CA	LEHS	NG	PYGENI	FWGSGT	GWEP	AAQAVSAW	VEERQ	WYNY	WH	NSC	117		
Glyma.17G066100	LFRHN	LVRAAKW	ELPL	MWDF	QLEQYARW	WAGQRKAD	CK	LEHS	F	PFEDG	FKL	GENI	YWGS	GS	AWTP	SDAV	RAWADE	EKYYTY	ATNT	106
Glyma.13G094100	LFRHN	LVRAAKW	ELPL	MWDF	QLEQYARW	WAGQRKAD	CK	LEHS	F	PFEDG	FKL	GENI	YWGS	GS	AWTP	SDAV	RAWADE	EKYYTY	ATNT	150
consensus	* * *	* ! *	*	*	*	!	*	*	*	*	*	*	*	*	*	*	*	*	*	

	230	240	250	260	270							
Glyma.01G180400	V.GKHECGVYTQ	VVWRNSTE	VGC	AQAVCVK	EQASLTIC	CFYDPPGNVIG	EIPY	275				
Glyma.02G060800	V.PNHR	CGVYTQ	VVWRKSLE	LGCARAT	CVK	EQASLTIC	CFYNPPGNYIG	ESPY	172			
Glyma.16G143300	A.PNHR	CGVYTQ	VVWRKS	VELGC	AQATCVK	EQASLTIC	CFYNPPGNYV	GESPY	174			
Glyma.10G047000	APPPKAC	GHETQ	VVWRDS	SRIGCAL	QHQHNP	SLGMLIACEYD	PAGNYENED	PLKQHER	277			
Glyma.13G252600	V.HD	ECLHYTQ	IVWRDS	SVHLGC	ARAKCNN	D.WVFVICS	YSPPGNI	EGERP	161			
Glyma.15G062300	V.HD	ECLHYTQ	IVWRDS	SVHLGC	ARAKCNN	G.WVFVICS	YSPPGNI	EGERP	161			
Glyma.07G186400	S.S	VCGHYTQ	VVWRNS	SLRVGC	AKVRC	CDN	G	STFIIC	CCYDPRGN	IRGQRPY	170	
Glyma.07G186300	V.NNQEC	MHYAQL	VWSNT	FLVGC	ARSKCDN	G	WTFVICS	YDPPGN	FQGEQPY	160		
Glyma.07G186200	V.GG	VCGHYTQ	VVWRD	STQVGC	AKVECDN	G	GTFIG	CNYYPPGNY	VGQRPY	165		
Glyma.15G062700	V.GG	ECRHYTQ	VVWKNS	SVRLGC	GKVRC	CDN	G	GTFIT	CNYAPPGNY	VGQRPY	165	
Glyma.15G062500	V.GG	ECLHYTQ	VVWRNS	LRLGC	AKVRC	CDN	G	GTFIG	CNYAPPGNY	IGQRPY	164	
Glyma.15G062900	V.GG	ECLHYTQ	VVWRD	SVRLGC	AKVTC	CDN	G	GTFIT	CNYDPL		126	
Glyma.13G252400	V.GG	ECLHYTQ	VVWANS	SVRLGC	AKVTC	CDN	G	GTFIT	CNYDPPGN	FVGERPY	174	
Glyma.13G252300	V.GG	ECLHYTQ	VVWANS	SVRLGC	AKVTC	CDN	G	GTFIT	CNYDPPGN	FVGERPY	174	
Glyma.13G251700	V.GG	ECLHYTQ	VVWANS	SVRLGC	AKVTC	CDN	G	GTFIT	CNYDPPGN	FVGERPY	174	
Glyma.13G252000	V.GG	ECLHYTQ	VVWANS	SVRLGC	AKVTC	CDN	G	GTFIT	CNYDPPGN	FVGERPY	174	
Glyma.13G251600	V.GG	ECLHYTQ	VVWANS	SVRLGC	AKVTC	CDN	G	GTFIT	CNYDPPGN	FVGERPY	174	
Glyma.15G062800	V.GG	ECLHYTQ	VVWAHSL	RLGC	AKVTC	CDN	G	GTFIT	CNYDPPGN	LVGESPY	174	
Glyma.13G252500		RGESC	NEH			G					79	
Glyma.15G062400	V.GG	ECLHYTQ	VVWRD	SVRLGC	AKVAC	CDN	G	GTFIT	CNYAPPGNY	VGQRPY	164	
Glyma.13G094200	A.NGQM	CGHYTQ	IVWST	TRKIG	CASVVC	SG	GKGT	FMT	CNYDPPGNY	YGERPY	175	
Glyma.17G066000	A.NGQM	CGHYTQ	IVWST	TRKIG	CASVVC	SA	GKGT	FMT	CNYDPPGNY	YGERPY	168	
Glyma.17G066100	V.PGQM	CGHYTQ	IVWKST								123	
Glyma.13G094100	V.PGQM	CGHYTQ	IVWKST	TRRIG	CARVVC	DD	G	DV	FMT	CNYDFVGN	YVGERPY	200
consensus	!	*****	*	*****	*		*	*	*	*	*	

 non conserved  
 similar  
  $\geq 80\%$  conserved