

AtGLYI-2.4	MSSYSIASAISRISPLIRF	VKPYSTGFSFITCACSSTRR	PKRFDQLCVF	MA	SEARE	SPANNPGLSTNR	DEAT	KGYIMQQT	MFR	KDP	KASLD	FYS	RVLGMS	LL	KRLD	FSEMK	FSLYFLGYED	TTT	APT	DPT	ERT	VWT			
AtGLYI.1				MA	SEARE	SPANNPGLSTNR	DEAT	KGYIMQQT	MFR	KDP	KASLD	FYS	RVLGMS	LL	KRLD	FSEMK	FSLYFLGYED	TTT	APT	DPT	ERT	VWT			
AtGLYI.2				MA	SEARE	SPANNPGLSTNR	DEAT	KGYIMQQT	MFR	KDP	KASLD	FYS	RVLGMS	LL	KRLD	FSEMK	FSLYFLGYED	TTT	APT	DPT	ERT	VWT			
AtGLYI-2.3				MA	SEARE	SPANNPGLSTNR	DEAT	KGYIMQQT	MFR	KDP	KASLD	FYS	RVLGMS	LL	KRLD	FSEMK	FSLYFLGYED	TTT	APT	DPT	ERT	VWT			
SbGlyI-8	-MAAASLLS	PSCALF	RRLPCASHIS	SSHFKRFD	VRRFS	P-AAM	TS	SGPK	EAPANNPGLQ	TEV	-DPAT	KGYFLQQT	MLRV	KDP	KVSLD	FYS	RVMGMS	LL	KRLD	FSEMK	FSLYFLGYED	VT	SAPDNH	IKRT	EW
SbGlyI-8.1	-MAAASLLS	PSCALF	RRLPCASHIS	SSHFKRFD	VRRFS	P-AAM	TS	SGPK	EAPANNPGLQ	TE	-MLRV	KDP	KVSLD	FYS	RVMGMS	LL	KRLD	FSEMK	FSLYFLGYED	VT	SAPDNH	IKRT	EW		
OsGlyI-8	MAAAAIAAASLL	SSAFAL	RRLSSAANVS	RFAQLKRFD	ARRFA	PAAAM	TS	SGPK	EAPANNPGLQ	APSEK	DPAT	KGYFMQQT	MFRV	KDP	KVSLD	FYS	RVMGMS	LL	KRLD	FPEMK	FSLYFLGYED	VE	SAPT	D	VKRT

AtGLYI-2.4	F	G	Q	P	A	T	I	E	L	T	H	N	W	G	T	S	D	P	E	F	K	G	Y	H	N	G	S	E	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	E	L	G	V	E	F	A	K	K	P	N	D	G	K	M	K	N	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	L	K	T	I	G	T	T	T	V	N	A	A	
AtGLYI.1	F	G	Q	P	A	T	I	E	L	T	H	N	W	G	T	S	D	P	E	F	K	G	Y	H	N	G	S	E	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	E	L	G	V	E	F	A	K	K	P	N	D	G	K	M	K	N	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	L	K	T	I	G	T	T	T	V	N	A	A	
AtGLYI.2	F	G	Q	P	A	T	I	E	L	T	H	N	W	G	T	S	D	P	E	F	K	G	Y	H	N	G	S	E	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	E	L	G	V	E	F	A	K	K	P	N	D	G	K	M	K	N	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	L	K	T	I	G	T	T	T	V	N	A	A	
AtGLYI-2.3	F	G	Q	P	A	T	I	E	L	T	H	N	W	G	T	S	D	P	E	F	K	G	Y	H	N	G	S	E	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	E	L	G	V	E	F	A	K	K	P	N	D	G	K	M	K	N	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	L	K	T	I	G	T	T	T	V	N	A	A	
SbGlyI-8	F	R	Q	K	A	T	L	E	L	T	H	N	W	G	T	E	N	D	P	E	F	K	G	Y	H	N	G	S	D	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	R	L	G	V	E	F	V	K	K	P	D	D	G	K	I	K	G	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	H	T	-	I	G	T	V	T	S	S	A	S
SbGlyI-8.1	F	R	Q	K	A	T	L	E	L	T	H	N	W	G	T	E	N	D	P	E	F	K	G	Y	H	N	G	S	D	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	R	L	G	V	E	F	V	K	K	P	D	D	G	K	I	K	G	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	H	T	-	I	G	T	V	T	S	S	A	S
OsGlyI-8	F	G	Q	P	A	T	I	E	L	T	H	N	W	G	T	E	N	D	P	E	F	K	G	Y	H	N	G	S	D	P	R	G	F	G	H	I	G	V	T	V	D	D	V	H	K	A	C	E	R	F	E	R	L	G	V	E	F	V	K	K	P	D	D	G	K	M	K	G	I	A	F	I	K	D	P	D	G	Y	W	I	E	I	F	D	L	N	R	I	G	A	V	T	A	E	A	S

Figure S2