

The colour assignments have been adapted from the defaults in CLUSTALX (Thompson *et al.* 1997) Abstract :

	. . . . .	60	. . . . .	70	. . . . .	80	. . . . .	90	. . . . .	100
gi_13633932_sp_AV	DALVKKLK	KKKGAMEELE	KALS	CPGQPS	NCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_118573879_spAV	DALVKKLK	KKKGAMEELE	KALS	CPGQPS	NCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13633915_sp_AV	DALVKKLK	KKKGAMEELE	KALS	CPGQPS	NCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_341942042_spAV	DALVKKLK	KKKGAMEELE	KALS	CPGQPS	NCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13959533_sp_AV	DALVKKLK	KKKGAMEELE	KALS	SPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13959566_sp_AV	DALVKKLK	KKKGAMEELE	KALS	SPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13959559_sp_AV	DALVKKLK	KKKGAMEELE	KALS	SPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_82121811_sp_AV	DALVKKLK	KKKGAMEELE	KALS	SPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_21264062_sp_AV	DALVKKLK	KKKGAMEDLE	KALS	SPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13633872_sp_AV	DALVKKLK	KKKGAMEELE	KALS	CPGQPS	NCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13959539_sp_AV	D <del>S</del> LVKKLLK	KKKGAMDELE	RALS	CPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_21264049_sp_AV	DALVKKLK	KKKGAMEELE	RALS	CPGQPS	NCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_66774168_sp_AV	D <del>S</del> LVKKLLK	KKKGAMDELE	RALS	CPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_13959527_sp_AV	D <del>S</del> LVKKLLK	KKKGAMDELE	RALS	CPGQPS	KCVTIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_51338669_sp_AV	K <del>S</del> LVKKLLK	K- TGQLDELE	KAIT	TQN <del>V</del> NT	KCITIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_60414603_sp_AV	K <del>S</del> LVKKLLK	K- TGQLDELE	KAIT	TQN <del>I</del> NT	KCITIP	- - -	- - - - -	- - - - -	- - - - -	- - - - -
gi_117949830_spAV	K <del>S</del> LVKKLLK	K- TGR <del>L</del> DELE	KAIT	TQNCNT	KCVTIPSTCS	EIWGLSTANT	- - - - -	- - - - -	- - - - -	- - - - -
gi_13633871_sp_AV	K <del>S</del> LVKKLLK	K- TGR <del>L</del> DELE	KAIT	TQNCNT	KCVTIPSTCS	EIWGLSTANT	- - - - -	- - - - -	- - - - -	- - - - -
gi_13633914_sp_AV	K <del>S</del> LVKKLLK	K- TGR <del>L</del> DELE	KAIT	TQNCNT	KCVTIPSTCS	EIWGLSTPNT	- - - - -	- - - - -	- - - - -	- - - - -
gi_75041393_sp_AV	K <del>S</del> LVKKLLK	K- TGR <del>L</del> DELE	KAIT	TQNCNT	KCVTIPSTCS	EIWGLSTPNT	- - - - -	- - - - -	- - - - -	- - - - -
gi_110826300_spAV	K <del>S</del> LVKKLLK	K- TGR <del>L</del> DELE	KAIT	TQNCNT	KCVTIPSTCS	EIWGLSTPNT	- - - - -	- - - - -	- - - - -	- - - - -
gi_21264050_sp_AV	K <del>S</del> LVKKLLK	K- TGQ <del>L</del> DELE	KAIT	TQNRNT	KCVTIPSNC	EIWGLSTPNT	- - - - -	- - - - -	- - - - -	- - - - -

	110	120	130	140	150
gi_13633932_sp	RS	LD	GR	LQ	VS
gi_118573879_sp	RS	LD	GR	LQ	VS
gi_13633915_sp	RS	LD	GR	LQ	VS
gi_341942042_sp	RS	LD	GR	LQ	VS
gi_13959533_sp	RS	LD	GR	LQ	VS
gi_13959566_sp	RS	LD	GR	LQ	VS
gi_13959559_sp	RS	LD	GR	LQ	VS
gi_82121811_sp	RS	LD	GR	LQ	VS
gi_21264062_sp	RS	LD	GR	LQ	VS
gi_13633872_sp	RS	LD	GR	LQ	VS
gi_13959539_sp	RS	LD	GR	LQ	VS
gi_21264049_sp	RS	LD	GR	LQ	VS
gi_66774168_sp	RS	LD	GR	LQ	VS
gi_13959527_sp	RS	LD	GR	LQ	VS
gi_51338669_sp	RS	LD	GR	LQ	VS
gi_60414603_sp	RS	LD	GR	LQ	VS

gi_117949830_sp	V	D	Q	W	D	T	T	G	L	Y	S	F	S	E	Q	T	R	S	L	D	G	R	L	Q	V	S	H	R	K	G	L	P	H	V	I	Y	C	R	L	W	R	W	P	D	L	H	S	H	H	E				
gi_13633871_sp	V	D	Q	W	D	T	T	G	L	Y	S	F	S	E	Q	T	R	S	L	D	G	R	L	Q	V	S	H	R	K	G	L	P	H	V	I	Y	C	R	L	W	R	W	P	D	L	H	S	H	H	E				
gi_13633914_sp	I	D	Q	W	D	T	T	G	L	Y	S	F	S	E	Q	T	R	S	L	D	G	R	L	Q	V	S	H	R	K	G	L	P	H	V	I	Y	C	R	L	W	R	W	P	D	L	H	S	H	H	E				
gi_75041393_sp	I	D	Q	W	D	T	T	G	L	Y	S	F	S	E	Q	T	R	S	L	D	G	R	L	Q	V	S	H	R	K	G	L	P	H	V	I	Y	C	R	L	W	R	W	P	D	L	H	S	H	H	E				
gi_110826300_sp	I	D	Q	W	D	T	T	G	L	Y	S	F	S	E	Q	T	R	S	L	D	G	R	L	Q	V	S	H	R	K	G	L	P	H	V	I	Y	C	R	L	W	R	W	P	D	L	H	S	H	H	E				
gi_21264050_sp	I	E	Q	W	D	T	S	G	L	Y	S	Y	P	D	Q	T	R	S	L	D	G	R	L	Q	V	S	H	R	K	G	L	P	H	V	I	Y	C	R	L	W	R	W	P	D	L	H	S	H	H	E				
										160.											170.											180.											190.											200
gi_13633932_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	H	S	L				
gi_118573879_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	H	S	L				
gi_13633915_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	H	S	L				
gi_341942042_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	H	S	L				
gi_13959533_sp	L	K	P	L	D	I	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	N	E	F	N	P	Q	H	S	L				
gi_13959566_sp	L	K	P	L	D	I	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	N	E	F	N	P	Q	H	S	L				
gi_13959559_sp	L	K	P	L	D	I	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	N	E	F	N	P	Q	H	S	L				
gi_82121811_sp	L	K	P	L	D	I	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	F	N	P	Q	H	S	L				
gi_21264062_sp	L	K	P	L	E	V	C	E	Y	P		F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	F	N	P	Q	H	S	L			
gi_13633872_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	K	R	V	E	S	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	H	S	L				
gi_13959539_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	R	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	L	S	L				
gi_21264049_sp	L	K	A	L	E	C	C	E	F	F	F	G	S	K	Q	K	D	V	C	I	N	P	Y	H	Y	K	R	V	D	S	P	V	L	P	P	V	L	V	P	R	N	S	E	F	N	A	K	L	S	M				
gi_66774168_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	R	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	L	S	L				
gi_13959527_sp	L	K	P	L	E	C	C	E	F	F	F	G	S	K	Q	K	E	V	C	I	N	P	Y	H	Y	R	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	S	E	Y	N	P	Q	L	S	L				
gi_51338669_sp	L	R	A	M	E	L	C	E	F	A		F	N	M	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	P	A	E	F	P	P			
gi_60414603_sp	L	R	A	M	E	M	C	E	Y	A		F	N	M	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	P	A	E	F	P	P			
gi_117949830_sp	L	K	A	I	E	N	C	E	Y	A		F	N	L	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	L	T	E	L	P	P			
gi_13633871_sp	L	K	A	I	E	N	C	E	Y	A		F	S	L	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	L	T	E	L	P	P			
gi_13633914_sp	L	K	A	I	E	N	C	E	Y	A		F	N	L	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	L	T	E	L	P	P			
gi_75041393_sp	L	K	A	I	E	N	C	E	Y	A		F	N	L	K	E	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	L	T	E	L	P	P			
gi_110826300_sp	L	K	A	I	E	N	C	E	Y	A		F	N	L	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	L	T	E	L	P	P			
gi_21264050_sp	L	R	A	I	E	T	C	E	Y	A		F	N	L	K	K	D	E	V	C	V	N	P	Y	H	Y	Q	R	V	E	T	P	V	L	P	P	V	L	V	P	R	H	T	E	I	L	T	E	L	P	P			
										210.											220.											230.											240.											250
gi_13633932_sp	L	A	Q	F	R	N	L	G	-	Q		N	E	P	H	M	P	H	N	A	T	F	P	D	S	F	Q	Q	P	N	S	H	P	F	P	H	S	P	N	-	-	-	-	S	S	Y	P	N	S					
gi_118573879_sp	L	A	Q	F	R	N	L	G	-	Q		N	E	P	H	M	P	L	N	A	T	F	P	D	S	F	Q	Q	P	N	S	H	P	F	P	H	S	P	N	-	-	-	-	S	S	Y	P	N	S					
gi_13633915_sp	L	A	Q	F	R	N	L	G	-	Q		N	E	P	H	M	P	L	N	A	T	F	P	D	S	F	Q	Q	P	N	S	H	P	F	P	H	S	P	N	-	-	-	-	S	S	Y	P	N	S					
gi_341942042_sp	L	A	Q	F	R	N	L	G	-	Q		N	E	P	H	M	P	L	N	A	T	F	P	D	S	F	Q	Q	P	N	S	H	P	F	P	H	S	P	N	-	-	-	-	S	S	Y	P	N	S					
gi_13959533_sp	L	V	Q	F	R	N	L	S	-	H		N	E	P	H	M	P	Q	N	A	T	F	P	D	S	F																												



<b>gi_75041393_sp_-</b>	- - - - -	- - - - -	<b>PPG</b>	<b>Y I S E D G E T S D</b>	<b>Q Q L N Q S M D T G</b>	<b>S P A E L S P T T</b>
<b>gi_110826300_sp-</b>	- - - - -	- - - - -	<b>PPG</b>	<b>Y I S E D G E T S D</b>	<b>Q Q L N Q S M D T G</b>	<b>S P A E L S P T T</b>
<b>gi_21264050_sp_-</b>	- - - - -	- - - - -	<b>PPG</b>	<b>Y I S E D G E A S D</b>	<b>Q Q M N Q S M D T G</b>	<b>S P A E L S P S T</b>

[illegible]

	360	370	380	390	400
gi_13633932_sp	TSILVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_118573879_sp	TSVLVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13633915_sp	TSVLVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_341942042_sp	TSVLVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13959533_sp	TSVLVDGFTD	PANNKSRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13959566_sp	TSVLVDGFTD	PSNNKSRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13959559_sp	TSVLVDGFTD	PSNNKSRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_82121811_sp	TSVLVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_21264062_sp	TSVLVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13633872_sp	TSVLVDGFTD	PSNNKNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13959539_sp	RSVLIDGFTD	PSNNRNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_21264049_sp	TSVLVDGFTD	PSNNRNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_66774168_sp	RSVLIDGFTD	PSNNRNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_13959527_sp	RSVLIDGFTD	PSNNRNRFC	GLLSNVNRNS	TIENTRRRHIG	KGVHLYYVGG
gi_51338669_sp	PSMTVDGFTD	PSNS-ERFC	GLLSNVNRNA	AVELTRRRHIG	RGVRLYYIGG
gi_60414603_sp	PSMTVDGFTD	PSNS-ERFC	GLLSNVNRNA	AVELTRRRHIG	RGVRLYYIGG
gi_117949830_sp	PSLTVDGFTD	PSNS-ERFC	GLLSNVNRNA	TVEMTRRRHIG	RGVRLYYIGG
gi_13633871_sp	PSLTVDGFTD	PSNS-ERFC	GLLSNVNRNA	TVEMTRRRHIG	RGVRLYYIGG
gi_13633914_sp	PSLTVDGFTD	PSNS-ERFC	GLLSNVNRNA	TVEMTRRRHIG	RGVRLYYIGG
gi_75041393_sp	PSLTVDGFTD	PSNS-ERFC	GLLSNVNRNA	TVEMTRRRHIG	RGVRLYYIGG
gi_110826300_sp	PSLTVDGFTD	PSNS-ERFC	GLLSNVNRNA	TVEMTRRRHIG	RGVRLYYIGG
gi_21264050_sp	PSLTVDGFTD	PSNS-ERFC	GLLSNVNRNA	TVEMTRRRHIG	RGVRLYYIGG

	...	...	...	410	...	...	...	420	...	...	...	430	...	...	...	440	...	...	...	450																													
gi_13633932_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_118573879_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_13633915_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_341942042_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_13959533_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	F	H	H	G	F	H	P	T	T	V	C	K	I	P	S	S	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_13959566_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	F	H	H	G	F	H	P	T	T	V	C	K	I	P	S	S	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_13959559_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	F	H	H	G	F	H	P	T	T	V	C	K	I	P	S	S	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_82121811_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_21264062_sp_E	V	Y	A	E	C	L	S	D	T	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_13633872_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	E	F	A	Q	L
gi_13959539_sp_E	V	Y	A	E	C	V	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	Q	H	G	F	H	P	A	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	L	F	A	Q	L
gi_21264049_sp_E	V	Y	A	E	C	L	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	H	H	G	F	H	P	T	T	V	C	K	I	P	S	R	C	S	L	K	I	F	N	N	Q	E	F	A	E	L
gi_66774168_sp_E	V	Y	A	E	C	V	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	Q	H	G	F	H	P	A	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	L	F	A	Q	L
gi_13959527_sp_E	V	Y	A	E	C	V	S	D	S	S	I	F	V	Q	S	R	N	C	N	Y	Q	H	G	F	H	P	A	T	V	C	K	I	P	S	G	C	S	L	K	I	F	N	N	Q	L	F	A	Q	L
gi_51338669_sp_E	V	F	A	E	C	L	S	D	S	S	A	I	F	V	Q	S	P	N	C	N	Q	R																											

					460					470					480					490					500
gi_13633932_sp_	-	-	-	LAQSVN	HGFETVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_118573879_sp_	-	-	-	LAQSVN	HGFETVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13633915_sp_	-	-	-	LAQSVN	HGFETVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_341942042_sp_	-	-	-	LAQSVN	HGFETVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13959533_sp_	-	-	-	LAQSVN	HGFEAVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13959566_sp_	-	-	-	LAQSVN	HGFEAVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13959559_sp_	-	-	-	LAQSVN	HGFEAVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_82121811_sp_	-	-	-	LAQSVN	HGFEAVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_21264062_sp_	-	-	-	LAQSVN	HGFEAVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13633872_sp_	-	-	-	LAQSVN	HGFETEYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13959539_sp_	-	-	-	LAQSVH	HGFEVVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_21264049_sp_	-	-	-	LAQSVN	HGFEAVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_66774168_sp_	-	-	-	LAQSVH	HGFEVVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE												
gi_13959527_sp_	LAQL	LAQSVH	HGFEVVYE	LT	KMCTLR	MSFV	KGWGA	EYHR	Q	DVTSTP	PCWIE														
gi_51338669_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_60414603_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_117949830_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_13633871_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_13633914_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_75041393_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_110826300_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												
gi_21264050_sp_	-	-	-	LAQSVN	QGFEAVYQ	LT	RMCTLR	MSFV	KGWGA	EYRR	Q	TVTSTP	PCWIE												

	510										520																	
gi_13633932_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_118573879_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_13633915_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_341942042_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_13959533_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	L	N	P	I	S	S	V	S
gi_13959566_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	L	N	P	I	S	S	V	S
gi_13959559_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	L	N	P	I	S	S	V	S
gi_82121811_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	L	N	P	I	S	S	V	S
gi_21264062_sp	V	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	L	N	P	I	S	S	V	S
gi_13633872_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_13959539_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_21264049_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_66774168_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_13959527_sp	I	H	L	H	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	H	N	P	I	S	S	V	S
gi_51338669_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	I	R	C	S	S	V	S
gi_60414603_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	I	R	C	S	S	V	S
gi_117949830_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	V	R	C	S	S	M	S
gi_13633871_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	V	R	C	S	S	M	S
gi_13633914_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	V	R	C	S	S	M	S
gi_75041393_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	V	R	C	S	S	M	S
gi_110826300_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	V	R	C	S	S	M	S
gi_21264050_sp	L	H	L	N	G	P	L	Q	W	L	D	K	V	L	T	Q	M	G	S	P	S	V	R	C	S	S	M	S