

gt
X bZip

Dpse	ML MHEKLMSGQFF	N	DLKTD	DRKPL	L	HHHHHH	QY	HNH	H	H	H	Q	QSS	P	QQT	HHH	50											
Dper	ML MHEKLMSGQFF	N	DLKTD	DRKPL	L	HHHHHH	QY	QNH	H	H	H	Q	QSS	P	QQT	HHH	50											
Dmel	ML MHEKLMA GQFF	-	DLKTD	DRKPL	M	HHH	QY	Q	HH	Q	Q	Q	P	L	H	L	PHS- - - - -	42										
Dsec	ML MHEKLMA GQFF	-	DLKTD	DRKPL	M	HHH	QY	Q	HH	Q	Q	Q	P	L	H	L	PHS- - - - -	42										
Dyak	ML MHEKLMA GQFF	-	DLKTD	DRKPL	M	HHH	QY	Q	HH	Q	Q	Q	P	L	H	L	PHS- - - - -	42										
Dere	ML MHEKLMA GQFF	-	DLKTD	DRKPL	M	HHH	QY	Q	HH	Q	Q	Q	P	L	H	L	PHS- - - - -	42										
Dana	ML MHEKLMA GQFF	-	DLKTD	DRKPL	M	HHH	QY	Q	P	Q	Q	Q	H	H	Q	H	H	QLQ- - - - -	42									
Dwil	ML MHEKLMA GQFF	-	DLKT	ERKPL	L	L	H	Q	Q	H	H	H	H	H	H	Q	Q	Q	HL	QQQ- - - - -	42							
Dgri	ML MHEKLISGQFF	-	DLKTD	DRKPL	L	HHHHHHHH	H	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	- - - - -	38							
Dvir	ML MHEKL L T GQFF	-	DLKTD	DRKPL	L	HHHHHHHH	L	Q	Q	Y	Q	L	P	H	S	Q	L	-	Q	Q	P	H	H	L	48			
Dmoj	ML MHEKL LAGQFF	-	DLKTD	DRKPL	L	HHHHH	S	H	H	L	Q	Q	Y	Q	L	P	H	S	-	-	-	-	Q	L	Q	Q	S	45

Dpse	HQQHQQQQHL	QQ	QHL	HL	Q	H	S	Q	L	Q	Q	Q	S	L	A	L	P	K	M	D	L	Y	T	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	100														
Dper	HQQHQQQQHL	QQ	QHL	HL	Q	H	S	Q	L	Q	Q	Q	S	L	A	L	P	K	M	D	L	Y	T	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	100														
Dmel	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	Q	L	P	V	Q	G	S	L	G	L	P	K	M	D	L	Y	T	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	73											
Dsec	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	Q	L	P	V	Q	G	S	L	G	L	P	K	M	D	L	Y	T	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	73											
Dyak	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	Q	L	P	V	Q	G	S	L	G	L	P	K	M	D	L	Y	T	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	73											
Dere	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	Q	L	P	V	Q	G	S	L	G	L	P	K	M	D	L	Y	T	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	73											
Dana	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	Q	Q	P	L	H	H	H	Q	L	P	A	P	G	Q	L	Q	P	Q	P	A	S	L	A	L	P	K	M	D	L	Y	A	73											
Dwil	- - - - -	- - - - -	Q	Q	H	H	L	Q	Q	Q	Q	H	Q	P	H	L	Q	L	P	Q	N	H	L	D	L	Y	A	A	Y	A	Y	Q	Q	Q	L	L	G	A	A	L	S	82										
Dgri	Q	Q	Q	Q	Q	Y	Q	L	Q	Q	Q	H	H	L	H	Q	H	Q	Q	Q	Q	Q	Q	Q	Q	Q	H	L	S	L	P	K	M	D	L	Y	A	A	Y	A	Y	Q	Q	Q	L	L	S	- - - -	84			
Dvir	H	Q	H	Q	Q	Q	H	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	P	S	H	L	T	L	P	K	M	D	L	Y	A	A	Y	A	Y	Q	Q	Q	L	L	S	- - - -	94			
Dmoj	H	H	L	H	H	Q	Q	Q	Q	Q	H	H	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	S	H	L	T	L	P	K	M	D	L	Y	A	A	Y	A	Y	Q	Q	Q	L	L	G	S	A	A	A	95

X bZip

Dpse	QQQQ	QQQQQH	QQQL	QQATVGG	AASAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	N	150										
Dper	QQQQ	QQQQQH	QQQL	QQATVGG	AASAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	N	150										
Dmel	QQQQ	QQQQQ	-	QQH	QQQL	QQ	QHT	S	SAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	S	121						
Dsec	QQQQ	QH	QQQ	-	QQH	QQQL	QQ	QQT	S	SAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	S	121					
Dyak	QQQQ	QQQQQQ	QH	QQM	QQQQQ	QQ	QQT	S	SAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	S	123						
Dere	QQQQ	QQQQQ	-	-	H	QQ	QL	QQ	QQ	S	SAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	S	120				
Dana	AYAY	QQQL	QL	QQQQQQ	QQ	QA	P	S	SAEVL	DL	SRRCD	SVET	PRKT	PSPYQT	S	123						
Dwil	QQQQ	QQQQQ	-	-	-	-	-	QQ	QP	A	SAEVL	DL	SRRCD	SVET	S	RKT	PSPYQT	N	124			
Dgri	-	-	-	-	-	L	S	QQQQQQ	QQQQQ	S	V	A	V	A	EVL	DL	SRRCD	SVET	PRKT	PSPYQT	N	127
Dvir	-	-	-	-	-	L	S	QQQQQQ	QQQQQ	P	V	A	V	A	EVL	DL	SRRCD	SVET	PRKT	PSPYQT	N	137
Dmoj	A-	AAL	S	QQQQQQ	QQQQQ	QQQQQ	SI	A	AA	A	EVL	DL	SRRCD	SVET	PRKT	PSPYQT	N	144				

Dpse	YSYGS	GSPTS	SPTAT	GSV-	SGSG	SGS-	-	I	PSS	LL	YSV	QQQQQQ	Q	LASL	YPA	197
Dper	YSYGS	GSPTS	SPTAT	GSV-	SGSG	SGS	SGS	I	PSS	LL	YSV	QQQQQQ	Q	LASL	YPA	199
Dmel	YSYGS	GSPTS	SASPT	SN	-	-	-	-	LL	YAA	QM	QQ	QQH	QQ	QQ	167
Dsec	YSYGS	GSPTS	SASPT	SS	-	-	-	-	LL	YAA	QM	QQ	QQN	QQ	QQ	164
Dyak	YSYGS	GSPTS	SASPT	SN	-	-	-	-	LL	YAA	QM	QQ	QQQQ	H	Q	167
Dere	YSYGS	GSPTS	SASPT	SN	-	-	-	-	LL	YAA	QM	QQ	QQQQ	Q	H	163
Dana	FSYGS	GSPTS	SASPT	SN	-	-	-	-	LL	YV	Q	QQ	QQ	QQ	-	161
Dwil	FSYGS	GSPTS	GSPS	NL	MY	-	-	-	-	-	-	-	-	AA	QQ	158
Dgri	YSYGS	GS	PAASPT	AT	I	PS	NL	LL	YSA	QA	AV	AQ	HQ	QH	QQ	177
Dvir	YSYGS	GS	PAASPT	AI	PS	N-	-	LL	Y	S	TQ	AA	AA	VQ	QQ	185
Dmoj	YSYGS	GS	PAASPT	AI	PS	NL	LL	YSA	QA	AV	AQ	QQ	QQ	QQ	QQ	194

gt

X bZip

Dpse	F	YYGN	I	KQE	P	S	A	P	K	V	T	P	N	A	N	-	A	S	A	T	A	T	A	S	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	V	G	-	-	243
Dper	F	YYGN	I	KQE	P	S	A	P	K	I	T	P	N	A	N	-	A	S	A	T	A	T	A	S	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	V	G	-	-	245	
Dmel	F	YY	S	N	I	KQE	Q	A	T	P	T	A	A	P	P	-	-	-	K	V	T	P	T	A	N	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	S	S	212	
Dsec	F	YY	S	N	I	KQE	Q	A	T	P	T	A	A	P	P	-	-	-	K	V	T	P	T	A	N	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	S	S	209	
Dyak	F	YY	S	N	I	KQE	Q	A	T	P	T	A	A	P	P	-	-	-	K	V	T	P	T	A	N	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	S	A	212	
Dere	F	YY	S	N	I	KQE	Q	A	T	P	T	A	A	P	P	-	-	-	K	V	T	P	T	A	N	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	S	S	208	
Dana	F	YY	N	N	I	KQE	P	L	T	A	A	K	A	T	P	T	-	A	S	A	T	A	T	A	S	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	S	S	208	
Dwil	L	YYGN	S	G	I	KQE	P	Q	G	S	S	T	T	I	T	-	P	K	P	N	P	T	A	S	L	L	Q	T	F	A	A	S	A	A	A	A	A	A	A	A	R	-	206		
Dgri	L	YYG	A	N	I	KQE	H	T	V	A	A	A	I	K	S	-	N	N	C	H	S	S	S	N	S	T	A	S	L	L	Q	S	F	A	A	S	A	A	A	A	A	225			
Dvir	G	G	S	N	S	I	KQE	P	S	P	A	A	K	T	G	N	N	C	-	-	S	A	T	A	S	L	L	Q	T	F	A	A	A	S	A	A	A	A	A	V	S	A	S	A	233
Dmoj	L	YYG	G	S	I	KQE	P	N	A	V	E	A	V	A	K	S	G	S	N	A	T	A	S	L	L	Q	T	F	A	A	A	S	A	A	A	A	A	V	S	A	S	A	V	244	

Dpse	-	V	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	T	P	Q	S	P	P	A	Q	T	T	N	N	S	S	T	T	A	S	T	T	P	T	S	S	T	V	A	N	-	-	290					
Dper	-	V	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	T	P	Q	S	P	P	A	Q	T	T	N	N	S	S	T	T	A	S	T	T	P	T	S	S	T	V	A	N	-	-	292					
Dmel	T	N	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	N	P	L	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	A	V	E	A	T	T	P	T	T	S	-	-	246					
Dsec	T	N	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	N	P	Q	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	A	V	E	A	T	T	P	T	T	S	-	-	243					
Dyak	T	N	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	N	P	Q	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	A	V	E	A	T	T	P	T	T	S	-	-	246					
Dere	T	N	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	D	N	P	Q	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	A	V	E	A	T	T	P	T	T	S	-	-	242					
Dana	N	A	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	N	P	Q	S	P	P	A	Q	I	P	-	-	-	-	-	-	-	-	A	Q	S	Q	T	T	T	P	T	S	-	-	247					
Dwil	-	-	-	-	-	P	A	S	T	A	S	T	M	Q	I	D	I	L	E	T	P	Q	S	P	P	A	T	A	N	-	-	-	-	-	-	-	Q	Q	T	D	S	S	A	P	L	T	T	P	T	S	S	C	-	-	246
Dgri	A	I	Q	S	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	A	P	Q	S	P	P	P	T	A	G	T	A	A	T	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	259						
Dvir	E	H	L	S	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	A	P	Q	S	P	P	A	P	A	S	A	T	A	N	A	G	E	S	Q	S	C	S	S	A	T	T	T	P	T	S	S	-	-	283		
Dmoj	E	H	S	P	R	P	A	S	N	A	S	T	M	Q	I	D	V	L	E	A	P	Q	S	P	P	A	S	T	S	D	S	Q	L	H	G	S	S	S	S	T	A	T	H	T	T	P	T	S	S	T	-	-	294		

gt

X bZip

Dpse	- - - - -	SASDTG	KNTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	333
Dper	- - - - -	SASDTG	KNTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	335
Dmel	- - - - -	SSGEAG	KNTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	289
Dsec	- - - - -	SSGEAG	KSTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	286
Dyak	- - - - -	SSGEAG	KNTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	289
Dere	- - - - -	SSGEAG	KNTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	285
Dana	- - - - -	SSGES	KNTRPFKAFPRDPLVI	AANFAATDVL	LDNPRVERYTE	290
Dwil	- - - - -	STD	SALKSTRPFK	T	FPRDPLVI AANFAATDVL LDNPRVERYTE	289
Dgri	- - - - -	STS	DAMKQ	TRPFKAFPRDPLVI	AANFAATDVL LDNPRVERYTE	302
Dvir	TAAL - - -	ATDASS	K	T	TRPFKAFPRDPLVI AANFAATDVL LDNPRVERYTE	330
Dmoj	TAPLSI A	GGV	DGS	KNTRPFKAFPRDPLVI	AANFAATDVL LDNPRVERYTE	344

Dpse	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	383
Dper	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	385
Dmel	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	339
Dsec	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	336
Dyak	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	339
Dere	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	335
Dana	YRKRVLEQI	RSSNGGQRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	340
Dwil	YRKRVLEQI	RSSNGGQRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	-	337
Dgri	YRKRVLEQI	RSSNGGARTVTNPKMRRTNSRSGSVNEGSSSTNNNSESE	DRA	352
Dvir	YRKRVLEQI	RSSNGGARTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	380
Dmoj	YRKRVLEQI	RSSNGGSRTVTNPKMRRTNSRSGSVNEGSSSNNNSESE	DRA	394

X bZip

Species	Sequence	Position
Dpse	AAEE-SSDCDSHAGNFE SKSTTGSHSNGSSSGAANAS FQ- - - - - P SSGG	426
Dper	AAEE-SSDCDSHAGNFE SKSTTGSHSNGSSSGAANAS FQ- - - - - P SSGG	428
Dmel	AAEE-SSDCDSQAGNFE SKSATSSSSNL ANAT AANS G- - - - - I SSGS	380
Dsec	AAEE-SSDCDSQAGNFE GK SATSSSSNL ANAT AANS G- - - - - I SSGS	377
Dyak	AAEE-SSDCDSQAGNFE GK SATSSSSNL ANAT AANS G- - - - - I SSGS	380
Dere	AAEE-SSDCDSQAGNFE GK SATSSSSNL ANAT AANA G- - - - - I SSGS	376
Dana	AAEE-SSDCDSQAGNFE GK SNGSTSNGNL ANT SAT AGN AANA ANT AG SSGG	389
Dwil	RVEE-SSDCDSHAGNMDKVMPSASA KTA S SNA SVI S - - - - - GS	377
Dgri	DRAE-SSDCDSQAGNYDKLTG- - - - - AVQGGVGGAI A - - AAAA VAG- -	391
Dvir	AAEE-SSDCDSHAGNFEKLS GSGNAGNRSTSGAAA AAAA - - ASGT GGS- -	425
Dmoj	AAEE-SSDCDSHAGNFEKLS APATGAGAGAGA AAA AAAA - - AGTL SSGS	441

Dpse	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	476
Dper	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	478
Dmel	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	430
Dsec	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	427
Dyak	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	430
Dere	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	426
Dana	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	439
Dwil	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	427
Dgri	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	441
Dvir	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	475
Dmoj	QVKDAAYYERRRKNNAAAKKS	RD	RRRI	KEDEI	AI	RAAYL	ERQNI	EL	LCQI	491

gt

X bZip

Dpse	DALKAQLAAFTAKVATA-	493
Dper	DALKAQLAAFTAKVATA-	495
Dmel	DALKVQLAAFTSAKVTTA	448
Dsec	DALKAQLAAFTSAKVTTA	445
Dyak	DALKAQLAAFTSAKVTTA	448
Dere	DALKAQLAAFTSAKVTTA	444
Dana	DALKAQLAAFTAKVATA-	456
Dwil	DALKAQLAAFTHAKVATA	445
Dgri	DALKAQLAAFTAKVT - - -	456
Dvir	DALKAQLAAFT - - - - -	487
Dmoj	DALKAQLAAFTAKVT - - -	506

