

ESAG6p type

	100	110	120	130	140	150	160	170	180	190
<i>T. b. gambiense</i>	1	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	2	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	3	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	4	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	GRRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSI		
	5	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	6	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	7	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		

<i>T. b. brucei</i>	1	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADRSSQFCISV	GKTIIPPEQNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEALSSI		
	2	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GTNIPAEYNNLQECFDGI	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	3	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISV	GKTIIPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSI		
	5	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GRTGPAEYNNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	6	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKNIPAEHKNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	7	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGMTSKFCISV	GGSRPAVHDKLQECFDGT	IGPETLYKIEDSRVKESA	QKSLQLHEALSSI		
	8	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADGSSQFCISV	GTNIPAEHNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEALSSI		
	9	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADGSSQFCISV	GTNIPAEHNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEALSSI		
	10	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADRSSQFCISV	GKHIAAEHGNLQECFDGT	IGPETLYKIEDSRVKESA	AKTSLQLHEVLSSI		
	11	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISV	GKHIPAEHGNLQECFDGI	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	12	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIPAEHGNLQECFDGI	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	13	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADGSSQFCISV	GKTIIPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSI		
	14	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEVLSSI		
	15	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISV	GKTIIPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEVLSSI		
	16	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISV	GKTIIPAEHGLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEALSSI		
	17	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISV	GKHIPAEHGNLQECFDGI	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	18	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISV	GKHIPAEHGNLQECFDGI	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	19	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	AKTSLQLHEVLSSI		
	20	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADRSSQFCISV	GKTIIPPEHNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEALSSI		
	21	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSI		
	22	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GKHIAAEHGNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		

<i>T. equiperdum</i>	1	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	ADRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KKSLQLHEVLSSI		
	2	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSI		
	3	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGRSSQFCISTGK	TGPAEYNNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSI		
	4	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GRTGPAEYNNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	5	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GRTGPAEYNNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	6	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	AGSSQFCISV	GRTGPAEYNNLQECFDGK	IGPETLYKIEDSRVKESA	QKSLQLHEVLSSI		
	7	NEFTFQ	QEELEEMRN	SALAAAAAGLAAGRLEEWIFVFAQA	GGSSQFCISV	GTAIPPEHKNLQECFDGT	IGPETLYKIEDSRVKESA	KTRLLLHEVLSSV		

ESAG6p type

	200	210	220	230	240	250	260	270	280	290								
<i>T. b. gambiense</i>	1	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN
	2	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	LARF	QEAKN
	3	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN
	4	SFGSLG	GAENIRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	KEAKN
	5	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN
	6	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN
	7	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN

T. b. brucei

1	SFNSLGAES	IRGGNGK	DGCNLR	TD	TDGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
2	SFNSLGAEN	IRGGNGR	DGCNLR	TD	TDGVLE	GGSVRRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
3	SFGSLG	VKNIRGGNGK	DGCNLR	TD	TDGVLE	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
5	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATPHGTVR	WTE	DP	NK	VSI	F	KDVIRL	FARF	KEAKN
6	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATPHGTVR	WTE	DP	NK	VSI	F	KDVIRL	FARF	KEAKN
7	SFGSLG	VKNIRGGNG	MDGCNLR	TD	TDGILAG	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTKD	PS	SKVSI	F	KDVIRL	FARF	QEAKN	
8	SFSSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
9	SFSSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN	
10	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TDGVLE	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
11	SFNSLGAEN	IRGGNGRH	GCNLR	TD	TDGVLE	GGSVRRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
12	SFNSLGAEN	IRGGNGRH	GCNLR	TD	TDGVLE	GGSVRRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
13	SFGSLG	GAENIRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	KEAKN	
14	SFSSLG	VKNIRGGNGK	DRCNLR	TD	TDGVLE	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
15	SFGSLG	VKNIRGGNGK	DRCNLR	TD	TDGVLE	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
16	SFSSLG	VKNIRGGNGR	DGCNLR	TD	TNGILE	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN	
17	SFNSLGAEN	IRGGNGR	DGCNLR	TD	TDGVLE	GGSVRRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
18	SFNSLGAEN	IRGGNGR	DGCNLR	TD	TDGVLE	GGSVRRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
19	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TDGVLE	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
20	SFGSLG	VKNIRGGNGK	DGCNLR	TD	TDGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
21	SFGSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
22	SFGSLG	VKNIRGGNGR	DGCNLR	TD	TNGILN	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	EDVIRL	FARF	QEAKN	

T. equiperdum

1	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
2	SFGSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	
3	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FALF	QEAKN	
4	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATPHGTVR	WTE	DP	NK	VSI	F	KDVIRL	FARF	KEAKN
5	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATPHGTVR	WTE	DP	NK	VSI	F	KDVIRL	FARF	KEAKN
6	SFSSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATPHGTVR	WTE	DP	NK	VSI	F	KDVIRL	FARF	KEAKN
7	SFGSLGAEN	IRGGNGK	DGCNLR	TD	NNGILK	GGSPTRHNL	TWGGGVMN	FGSYQNGSMY	VEGGEYGD	ATEYGAVR	WTE	DP	SKVSI	F	KDVIRL	FARF	QEAKN	

ESAG6p type

300 310 320 330 340 350 360 370 380 390 402

T. b. gambiense

1 AVMRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCCSVLLLGVL
 2 AVMRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCCSVLLLGVL
 3 AVMRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE SVRGPFTGAGSNTVAVHLSVSTAALCCSVLLLGVL
 4 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETISRLELSKRVSEQPSLGGEEETIVKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLLGVL
 5 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCCSVLLLGVL
 6 AVMRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCCSVLLLGVL
 7 AVVRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCCSVLLLGVL

T. b. brucei

1 AVMKK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETIVKFNNTAE PVRGPFTVAGANAAIHLVSTAALCRSALLLGVL
 2 EVMNK IKT TVDELA KCIGQKEVELTDDQIYEEFIWETIHRLELSKRVSEQLSLGGEEETILKSNTAE PVRGPFTVAGSNTVAVHLSVSTAALCFVLLLGVL
 3 AVMKK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETIVKFNNTAE PVRGPFTVAGANAAIHLVSTAALCRSALLLGVL
 5 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL
 6 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL
 7 AVMNK IKT TVDELTKCIGHKEAELTDYQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGADAAAIQSSVSTAALCCLALLGVM
 8 AVMRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRMSEQPTLGGEEETILKSNTAE PVRGPFTGAGANTVALHLSVSTAALCCSVLLLGVL
 9 AVMKK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRMSEQSAFGEEETIVKFNNTAE PVRGPFTGAGSNTVAVHLSFSTAALCCSVLLLGVL
 10 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETIVKFNNTAE PVRGPFTVAGANAAIHLVSTAALCRSALLLGVL
 11 EVMNK IKT TVDELA KCIGQKEVELTDDQIYEEFIWETIHRLELSKRVSEQLSLGGEEETILKSNTAE PVRGPFTVAGSNAAVHLSVSTAALCFVLLLGVL
 12 EVMNK IKT TVDELA KCIGQKEVELTDDQIYEEFIWETIHRLELSKRVSEQLSLGGEEETILKSNTAE PVRGPFTVAGSNAAVHLSVSTAALCFVLLLGVL
 13 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLLGVL
 14 AVMKK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETIVKFNNTAE PVRGPFTVAGANAAIHLVSTAALCRSALLLGVL
 15 AVMKK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETIVKFNNTAE PVRGPFTVAGANAAIHLVSTAALCRSALLLGVL
 16 EVMNK IKT TVDELA KCIGQKEVELTDDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCRSALLLGVL
 17 EVMNK IKT TVDELA KCIGQKEVELTDDQIYEEFIWETIHRLELSKRVSEQLSLGGEEETILKSNTAE PVRGPFTVAGSNAAVHLSVSTAALCFVLLLGVL
 18 EVMNK IKT TVDELA KCIGQKEVELTDDQIYEEFIWETIHRLELSKRVSEQLSLGGEEETILKSNTAE PVRGHFTVAGSNAAVHLSVSTAALCFVLLLGVL
 19 AVMTK IKT TVDELTKCIGHKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETIVKFNNTAE PVRGPFTVAGANAAIHLVSTAALCRSALLLGVL
 20 AVMKK IKT TVDELTKCTGQKEAELTNDQIYEEFIWETINRLELSKRVSEQSAFGEEETILKSNTAE PVRGPFTVAGSNAAVHLSVSTAALCRSALLLGVL
 21 AVMKK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVFTAALCCSALLLGVL
 22 AVMRR IKT TVDELTKCIGQKEAELTNDQIYEEFIWETIHRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGSNTVAVHLSVSTAALCCLALLLGVL

T. equiperdum

1 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSALLLGVL
 2 AVMTK IKT TVDELTKCIGQKEAELTNDQVYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL
 3 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLLGVL
 4 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL
 5 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL
 6 AVMTK IKT TVDELTKCIGQKEAELTNDQIYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL
 7 AVMTK IKT TVDELTKCIGQKEAELTNDQVYEEFIWETINRLELSKRVSEQPSLGGEEETILKSNTAE PVRGPFTGAGANTVAVQSSVSTAALCCSVLLFGVL