

site IV site V

311 PDGT GMYECLDLYPVGG--NSSEMLG-----GDDSPDVL faSST
 272 KDNVGMLECVDLYPVATTGN-QI G--NGL EMQVGF GKGI K asSST
 272 KDSVGMLECVDLYPVATTGN-QI G--NGL EMKGGSGKGI K acSST
 312 PKGTGEYECLDLYAVGGGRKASDMYN-----STAE-DVL taSST
 301 PDGT GMYECLDLYPVGG--NSSEMLG-----GDS SPEVL lpSST
 281 PH-TGMWECVDLYPVSTVHT-----NGL DMVDN- GPNVK htSST
 290 PH-TGMWECVDLYPVSTTHT-----NGL DMVDN- GPNVK csSST
 293 PH-TGMWECVDLYPVSTTHT-----NGL DMKDN- GPNVK ciSST
 285 PH-TGMWECVDLYPVSTTHT-----NGL DMMDN- GPNVK toSST
 337 VERVGMWECVDFYPVATADSSHAN--HGL DPSARPSPAVK acINV
 310 PG-TGMWECVDFYPI SKQGE-----NGL DTSVD- GPGVK ciINV
 317 PG-TGMWECVDFYPVSVTVS-----NGL DTSVN- GPGVK dclINV
 307 PN-TGMWECVDFYPVSKTAG-----NGL DTSVN- GPDVK atINV
 329 QG-TGMWECVDFYPVSAEP-----NGL DSTN- DQSVK bviINV
 320 PG-TGMWECVDLYPVSTTGE-----NGL DTSVN- GLDVK ibINV
 291 PG-TGMWECVDFYPVSTKKT-----NGL DTSYN- GPGVK leINV
 239 STNTGNWECPDFFPVSLNST-----NGL DVSYR- GKNVK lpINV
 307 PG-TGMWECVDLYPVSTTGE-----NGL DTSVN- GLGVK osINV
 294 PG-TGMWECVDFYPVSTTEKT-----NGL DTSYN- GPGVK stINV
 149 P-GTGMWECIDFYPVGGGA-----DGSEEL taINV(part)
 315 VPGTGMWECVDFYPVVAGSGAAAGSGDGLLETSAAPGPGVK zmlINV

site VI

343 FVLKESDDDRHDYYALGRFDAAANI WTPIDQELDLGI-- faSST
 309 HVLKASMDDERHDYYAIGTFDLESFTWPDDDTI DVG-- asSST
 309 HVLKASMDDERHDYYAIGTFDLESFSWPDDDTI DVG-- acSST
 345 YVLKESDDDRHDWYSLGRFDAAANKWTPIDEELDGV-- taSST
 333 FVLKESANDEWHDYYALGWFDAAANTWTPQDPEADLGI-- lpSST
 313 YVLKQSGDEDRHDWYAI GSYDI VNDKWYPDDPENDVGI-- htSST
 322 HVLKQSGDEDRHDWYALGTVDVNDKWYPDDPENDVGI-- csSST
 325 YILKQSGDEDRHDWYAVGTFDPEKDKWYPDDPENDVGI-- ciSST
 317 YILKQSGDEDRHDWYAI GSFDPINDKWYPDDPENDVGI-- toSST
 375 HVLKASMDDRHDYYAIGTYDPAQNTWPDASVDVGI-- acINV
 342 HVVKASMDDDRNDYYAIGTYDAYKWKWTPDNPTLDVGI-- ciINV
 349 HVLKSSLDDDRHDYALGTYPDPI NDKWTPDNPELDVGI-- dclINV
 339 HILVKASMDDRFDHYAVGTYFDSNGTWTPDDPTI DVGMTA atINV
 361 HVLKASMDDDRNDYYTLGTIEDNVTWTPDNPAIDVGI-- bviINV
 352 HVLKASLDDDKHDYYALGTYPDAKKNKWT PDNTDL DVGI-- ibINV
 323 HVLKASLDDNKQDHYAIGTYDLGKNKWT PDNPELDVGI-- leINV
 272 YVLKNSLDVAREFDYYTIGMYHTKI DRYIPNNNSIDG--WK lpINV
 339 HVLKTSLDDDKHDYYALGTYPVKNKWT PDNPDLDVGI-- osINV
 326 HVLKASLDDNKQDHYAIGTYDLTKNKCT PDNPELDVGI-- stINV
 172 YVMKESDDDRHDWYALGRYDAAANKYTPIDAEMDVGI-- taINV(part)
 355 HVLKASLDDDKHDYYAIGTYDPATDTWTPDSAEDDVGI-- zmlINV

site VII

381 GLRYDWGKYIYASKSFYDQKKNRRI VWAYI GETDS- EQADI faSST
 347 GLRYDYGKFYASKTFYDQEKRRRI LWGYVGEVDS- KTDDA asSST
 347 GLRYDYGKFYASKTFYDQEKRRRI LWGYVGEVDS- KADDI acSST
 383 GLRYDWGKYIYASKSFYDPVKRRRVWAYV GETDS- ERADI taSST
 371 GLRYDWGKYIYASKSFYDPI KNRRRVWAFV GETDS- EQADK lpSST
 351 GLRYDFGKFYASKTFYDQHKRRRVLWGYV GETDP- QKYDL htSST
 360 GLRYDFGKFYASKTFYDQHKRRRVLWGYV GETDP- PKYDV csSST
 363 GLRYDYGKFYASKTFYDQHKRRRVLWGYV GETDP- PKS DL ciSST
 355 GLRYDYGKFYASKTFYDQHKSRRVLWGYV GETDP- PKDDL toSST
 413 GLRYDWGKFYASKTFYDHA KRRRI LWSW GETDS- ETADI acINV
 380 GLRYDYGIYYASKTFYDQNKQRRVLWGW KETDT- EASDI ciINV
 387 GLRLDYGKYIYASKTFYDQDKERRLLWGW GESDN- ESTDL dclINV
 379 SLRYDYGKFYASKSFYDQNKGRRVLWGW GESDS- EASDV atINV
 399 GLRYDYGRFYASKTFYDHEKRRRI LWGW TEGDS- EAADV bviINV
 390 GLRLDYGKYIYASKTFYDQNKQRRRI LWGW GETDL- EAVDL ibINV
 361 GLRLDYGKYIYASKTFYDPKERRRVLWGW GETDS- ESADL leINV
 310 GLRLDYGNFYASKTFYDPSRNRRVI WGSNESDVL PDDDI lpINV
 377 GLRLDYGKYIYARTFYDQNKQRRRI LWGW GETDL- EAVDL osINV
 364 GLKLDYGKYIYASKTFYDPKQRRVLWGW GETDS- ESADL stINV
 210 GLRYDWGKFYASKTFYDPSKNRRRVLWGW GETDS- ERADV taINV(part)
 393 GLRYDYGKYIYASKTFYDPVLRRRRVLWGW GETDS- ERADI zmlINV

site VIII

420 TKGWANLMTI PRTVELDKKT RTNLI QWPVEELDTL RRNS- faSST
386 RKGWANVLNI ARTILFDVKT RSNLLVWPVEELDALRTSS- asSST
386 LKGWASVQNI ARTILFDAKT RSNLLVWPVEELDALRTSG- acSST
422 TKGWANLQSI PRTVELDEKT RTNLVQWPVEELDALRI NT- taSST
410 AKGWASLMSI PRTVELDKKT RTNLI QWPVEEIE TLR RNV- lpSST
390 SKGWANILNI PRTVLDLET KTNLI QWPVEE T ENLR SKKY htSST
399 YKGWANILNI PRTVLDLTKT NTLI QWPVEEVENLR SNKY csSST
402 LKGWANILNI PRSVLDTQT GTNLI QWPVEEVEKLR STKY ciSST
394 LKGWANMLNI PRTVLDLVT GTNLI QWPVEEVENLR SKKY toSST
452 AKGWASLQGV PRTVLLDVKT GSNLI TWPVVEIE SLRTRP- acINV
419 KKGWASLMGVPRTI VLDKKTQSNII QWPVEEINL LR TNL- ciINV
426 LKGWASVQSI PRTVVFDDKKT GTNLI QWPVKEVESLR SRS- dclINV
418 QKGWASLQGI PRTVLDLTKT GKNLVQWPVEEIKSLR LSS- atINV
438 KKGWASLQGI PRTVLDLTKT RTNLVQWPVEEIE TLR QNN- bvINV
429 MKGWASLQAI PRTVLDLTKT GTNVL QWPVEEVEESLRSGD- ibINV
400 QKGWASVQSI PRTVLDLTKT GTHLLQWPVEEIE SLRVGD- leINV
350 KKGWASLQAI PRTVLDLTKT GTHLLQWPVEEIE TLR KQK- lpINV
416 MKGWASLQAI PRTVLDLTKT GTNVL QRPEEVEESWS SGD- osINV
403 QKGWASVQSI PRTVLDLTKT GTHLLQWPVEEIE SLRGGD- stINV
249 AKGWASLQSI PRTVELDEKT RTNLI QWPVEEIE TLR I NS- talINV(part)
432 LKGWASVQSI PRTVLLDLTKT GSNLLQWPVVEEVENLRMSG- zmlINV

459 TDL SGI TVDAGS V I R L P L H Q G A Q I D I E A S F Q L N S S D V D A L faSST
425 KEFNGVVVEPGFTYHL DVGTASQLDI EA E F E I N Q E A V D A V asSST
425 KEFNGVVVEPGSTYHL DVGTATQLDI EA E F E I N K E A V D A V acSST
461 TDL SGI TVGAGS V A F L P L H Q T A Q L D I E A T F R I D A S A I E A L taSST
449 TDLGGITVEAGS V I H L P L Q Q G G Q L D I E A S F R L N S S D I D A L lpSST
430 DEFKDVELRPGALVPLEI GTATQLDI V A T F E I D Q K M L E S T htSST
439 NEFKDVELKPGSLI PLEI GTATQLDI T A T F E V D Q T M L E S T csSST
442 DEFKDVELRPGSLVPLEI GTATQLDI S A T F E I D Q K K L Q S T ciSST
434 DEFKDVELRPGSI I PLEI GSATQLDI M A T F E I D E K M L E S T toSST
491 RDFSIGITVDAGSTFKLDVGGAAQLDI EA E F K I S S E E L E A V acINV
458 TVFKTVVVESGSLVPLNLPASQLDI V A E F E V D K K T V E R L ciINV
465 YEINDVELKPGSLVPLKI S S A A Q L D I V A S F E V D E E A F K R T dclINV
457 KQFD-LEVGPGSVVPVDVGSAAQLDI EA E F E I N K E S L D K I atINV
477 KDFDKVEVPAGSVVPLDVSAATEI DI I A E F D I D K E A L E N L bvINV
468 PITAEANLEPGSVVPI HVSEGTQLDI T A S F E V D E T L L E T T ibINV
439 PTVKQVDLQPGSIELLRVDSAAELDI EA S F E V D K V A L Q G I leINV
388 VQLNNKKLSKGE M F E V K G I S A S Q A D V E V L F S F S S - L N K A lpINV
455 PITQRRIFEPGSVVPI HVSGATQLDI T A S F E V D E T L L E T T osINV
442 PIVKQVNLQPGSIELHVDSAAELDI EA S F E V D K V A L Q G I stINV
288 TDLGGTITD TGSVLPPLRRATQLDI E A T F H L D T S A I A A V talINV(part)
471 KSF D G V A L D R G S V V P L D V G K A T Q L D I E A V F E V D A S D A A G V zmlINV

499 TEADV- - - - - S Y N C S T S - G A A V R G A L G P F G L L V L A N - G R faSST
465 VEADV- - - - - T Y N C S T S D G S A H R G L L G P F G L L V L A N E K M asSST
465 VEADV- - - - - T Y N C S T S D G A A H R G L L G P F G L L V L A N E K M acSST
501 NEADV- - - - - S Y N C T T S S G A A T R G A L G P F G L L V L A N R A L taSST
489 NEADV- - - - - G F N C S S S D G A A V R G A L G P F G L L V F A D - G R lpSST
470 LEADV- - - - - F N C T T S E G S V A R S V L G P F G V V L A D A Q R htSST
479 LEADV- - - - - F N C T T S E G S A G R G V L G P F G L V V L A D A E R csSST
482 LEADV- - - - - F N C T T S E G S V G R G V L G P F G I V V L A D A N R ciSST
474 LEADV- - - - - F N C T T S E G S V G R G V L G P F G I V V L A D A K R toSST
531 KEADV- - - - - S Y N C S S S G G A A E R G V L G P F G L L V L A N Q D L acINV
498 NGAD- - - - - I A Y D C A K N G G A A Q R G A L G P F G F S V L A H E G L ciINV
505 YEAD- A - - - - S Y N C T A S E G A A G R G I L G P F G I L V L A D D P L dclINV
496 IGNASVVAEAE E F S C E K S G G S T V R G A L G P F G F S V L A T E S L atINV
517 PVSE- - - - - E H Y S C P A S K G A A Q R G A L G P F G L L V L A N N D L bvINV
508 SESHDA- - - - - G Y D C S N S G G A V T R G S L G P F G L L V V A D E K L ibINV
479 I E A D H V - - - - - G F S C S T S G G A A S R G I L G P F G V I V I A D Q T L leINV
426 EQFDPRWADLYAQDVCAI KGSTI QGG L G P F G L A T L A S K N L lpINV
495 SESHDA- - - - - G Y D C S N S G G A G T R G S L G P F G L L V V A D E K L osINV
482 I E A D H V - - - - - G F S C S T S G G A A S R G I L G P F G V V I A D Q K L stINV
328 NEADV- - - - - G Y N C S T S G G A A N R G A L G P F G L L V L A D G A L talINV(part)
511 TEADV- - - - - T F N C S T S A G A A G R G L L G P F G L L V L A D D D L zmlINV

