

DD37E-TRT-Dr : MGQ-----KKDLTGSESKVRYLAEG-----CSLTKAKLLKRD-----HRTIKRFFIQN--SQQGRKKRVEKPRR : 59
DD37E-TRT-Mz : MGQ-----KKDLTGSESKVRYLAEG-----CSSLKAKLLKRD-----HRTIKRFFIQN--SQQGRKKRVEKPRR : 59
DD37E-TRT-Hb : MGQ-----KKDLTGSESKVRYLAEG-----CSLTKAKLLKRD-----HRTIKRFFIQN--SQQGRKKRVEKPRR : 59
DD37E-L18-Acdi : MSK-----VNNCGRTYNPGEAIGESLTFASITDRMLLDGGDPATGFFG-GRFKNIGDCFG---VSAPFVSKLWKTFCLQ---GDHMPQKRSSGNPS : 83
DD37E-L18-Exdi : MI-----VTKKGRTFHRGKSLGFDVETAIIVDHMISKGGDVTXHFPGSLREVAEHFK---VSKTTVKKIWRQCSET--ADIDVQWKGGNPP : 82
DD37E-L18-Piim : MKKSH---VNNKGRRYDWGKPLGEDLRLSLVQYLLEKGANSESRFIPRGEAAKAGERFN---VSNNTIKNIWTLYADS--GDVKHRQGARGRPK : 86
DD37E-MS-Mali : M-----QSLNEEQRRLVQYKTEHPG-----QSNHAAKYFAEVGVTRSTVYAILNRYEEGGEESVLSAGSGGCHRT : 68
DD37E-MS-Plmu : M-----ARQKSTQLTAIVNLYNSTLIG-----RNRFYQVYLTFKGV-ASKSTIHRIIARSKEH---NNVVAKPRPGRTVK : 66
DD37E-MS-Drin : M-----EKQQDKIVHNFLENPD-----WSLSKGKTLK---IAKSTVCDVIKRFKET--HTNRAKHQTLKRG : 59
DD37E-MS-Opno : M-----SSSKELEV-ERFGRFEMLNPE-----MSATKVKHFKLEGVPERTGYRIVARINSG--QGVARNPMSGGNMA : 66
DD37E-MS-Adho : DMNKKYLDVSLSHSVVFT-MASSFYQQ-EIDQLNHTQKPN-----LSYRAAKLLK---YFQSTVCSVLKKFRER--LTLDKSGSGGKQG : 80

Helix1

Helix2

Helix3

DD37E-TRT-Dr : KITAHELRK KRAAAKMPLATSLA FQSCNI-----TGVPKSTRCAILRDM---AKVRHAERRPLNKTHKLKRQDWAKKYLKTDFS-----K : 139
DD37E-TRT-Mz : KITAHELRK KRAAAKMPLATSLA FQSCNI-----TGVPKSTRCAILRDM---AKVRHAERRPLNKTHKLKRQDWAKKYLKTDFS-----K : 139
DD37E-TRT-Hb : KITAHELRK KRAAAKMPLATSLA FQSCNI-----TGVPKSTRCAILRDM---AKVRHAERRPLNKTHKLKRQDWAKKYLKTDFS-----K : 139
DD37E-L18-Acdi : HLKPEDVQLVEFLKKKEPSATLASKETVENYCNLNGGTSLSAIGNTVNRNLPDGPFTRKLTREK-ATKFTPONLAYCGQFENFISALPPE--K : 175
DD37E-L18-Exdi : HLQSHHLDFTLEGLKTIKPSMPYSKTHEAVNNHCPIPAGTSRSSLGKAVQCNRLGGRTWWRMSRAN-GDKFLPANTNYCQDFNINMNTIDPY--R : 174
DD37E-L18-Piim : LLDDEDFNYIAAIIKKEPFEITLENKEKLLQ--NANKEVTMTISNALBKDLIGGQWTRVLTKTA-TERFTPANEQYTEAYIAEQSKRPPI--R : 176
DD37E-MS-Mali : ELKVTNAEVKNIVKDAQGLSQREARKFEDI-----SQAYVGKILQEN---GLKAYKKEKVAVTDQQRERQQVRVGRLYRTILDGRGGDL : 152
DD37E-MS-Plmu : KADAKNLEK-KKIVDGKDHVSDFFAAQRMGW-----SRSYIQKVRVQTL---GIHKYKRSAPFYTEEEHEAKKRCRKMVTEVFTPGTN-DL : 150
DD37E-MS-Drin : CRNRYLRAKIRSLRANPELDGDRAKRLKT-----SASTIRRIRLSE---GIKAYVCVKNNRSDKQNLNAKTRARLLYDQVLTKFQG--C : 141
DD37E-MS-Opno : -IDQIKDKDIEFAVNEVGLSYRQGRKFNI-----SYHSVESILTEA---GVQVRKKKCKSTEKQIEAQKKCLOKLRRTLFKASNG-VD : 148
DD37E-MS-Adho : VKDKKKKARLQLFTENPKLSRD AKKVKM-----SQSYVQKVSRSG---GLKSYIAQAANRDAKQNSAKRRARKLYNDLITKFE--C : 161

Helix1

Helix2

Helix3

DD37E-TRT-Dr : VLWTDDEMRVSDGPDGWARGWIGKGQR--APVRLR---RQQGGGGVILWAGTIKDELVGPFPRVEDGVKINSQSYCQFLEDTFFKQWYRKKSASE-- : 228
DD37E-TRT-Mz : VLWTDDEMRVSDGPDGWARGWIGKGQR--APVRLR---RQQGGGGVILWAGTIKDELVGPFPRVEDGVKINSQSYCQFLEDTFFKQWYRKKSASE-- : 228
DD37E-TRT-Hb : VLWTDDEMRVSDGPDGWARGWIGKGQR--APVRLR---RQQGGGGVILWAGTIKDELVGPFPRVEDGVKINSQSYCQFLEDTFFKQWYRKKSASE-- : 228
DD37E-L18-Acdi : IKFFDEAGVN-SGT-----GNPVYGSLLKGTKSIEIAAIPRGVNTLNL-----VCEGILTA-----NTLDGASNSTFTTNF : 244
DD37E-L18-Exdi : IKYFDEAGFCIPDV-----GKPTYGHSQINIKVEIGRYHNAPNTLNL-----ICIXGVVYA-----NTEDGSPDITLRLNFW : 244
DD37E-L18-Piim : IKFMDDEAGFALSEA-----VNRTRGHAPKGIKRAIEAQKRMKTTNTLNL-----ICLDGTVES-----TFVDGSPNRDEFLEKI : 246
DD37E-MS-Mali : IWLIDDESYFHSQOMIPGNSFYATARGDAPVEKRVSPQKFGDKILVWLAI SRHGASRVVMCHS-KTNKELIYA-----NECIRKRLVPDL : 238
DD37E-MS-Plmu : IUVVDEHYVYIDQSNVSVMYINYSTSRNVAPKEIKTRPQRKFCPKLWVLAISVKGRSEPIYIAPHKQNDRKVYL-----KECLEKRLIPDL : 237
DD37E-MS-Drin : IIMDDETYIKINFKQLAGRKFIYAYKRGCVASKRKNIPMDKFGKALINQAHCSGCLKSRAFVTT-SSMTSEVYV-----KCMQKRLIPFI : 227
DD37E-MS-Opno : IUMDDDESYFTIDGSDTNYNDFYGHPSLEAPESVKYRPKKFPEKVMVMAMSPKGFSEKPIYVKSNGNAVTDVYV-----RESL-TELRDPL : 234
DD37E-MS-Adho : IWLDDETYITKADFQIPGQEFYTSKSRDAPEDCKVKKRSKFPKKFLWQA--CSCGRKRSFITT-GTVNGEIMK-----KECLOKRLIPDL : 247

D

DD37E-TRT-Dr : -----KKNMIFMQDNPPSHASKY---STAILARKGTHKEEKLMTWPPCSPDINPIENLWSIIKCEITYKEGKQYTSLNSVWEAIVAA : 305
DD37E-TRT-Mz : -----KKNMIFMQDNPPSHASKY---STAILARKGTHKEEKLMTWPPCSPDINPIENLWSIIKCEITYKEGKQYTSLNSVWEAIVAA : 305
DD37E-TRT-Hb : -----KKNMIFMQDNPPSHASKY---STAILARKGTHKEEKLMTWPPCSPDINPIENLWSIIKCEITYKEGKQYTSLNSVWEAIVAA : 305
DD37E-L18-Acdi : GEAGQATSALGNPAIEQGDFIIMDNCAIHRFEAGTALQITLMDMGANVT---YTPSLSEEFNAVELVENKLIKILKREEYVPLLKENVHVAVYES : 336
DD37E-L18-Exdi : GEASNSRIPSGFPALQYGDIVVLDCATHHNNGGFILAPLDQFCIDVY---YIPVYSEINPCBLAFNKFKLAQRSDIKAVFNRRNVHDGYEC : 336
DD37E-L18-Piim : DEAAATSFSDDGSPVLQPGDVLVVDNNTIHRFEAERILRIFNNIIGVEYI---FIPKYSFDVNPVEFSFNITRTMKSEIFISALANDNLQYALKV : 338
DD37E-MS-Mali : NEQHS-----DGNYLFWPDLASCHYAKD---VIEVFQQLDINFSKEQNEPCVPHLRPIEHFWGILKQOYVHHWSQAQTLQOLKNRKKK : 320
DD37E-MS-Plmu : KTAYP-----KGNALFWPDLKRAHNART---VQFELREQKIKCVEYNLNEPKFQARPIETYMAKIDRRISLYREPTKDLQILKRRIRET : 319
DD37E-MS-Drin : HMHRS-----PVKFWPDLATCHYSNT---TKLIEYANQVDVLPKWLNFPNCPETPRPIERYAIVGKKIKRSGSIVNEKSMLIAFNKY : 307
DD37E-MS-Opno : DEYHS-----DENYLFWPDLASCHYART---TQEIYANVGKVVPKELNFPNVPOLREPIETFWAYLGRKIYANGWATAKNWKQKRRKEFI : 316
DD37E-MS-Adho : RNHSS-----QSLFWPDLASCHYSKA---VMEIYDQNSAVVVPQCNPPNCELRPIEYYSIMKGIKKKGKGGHPKSAAELOKMWTTWA : 327

D

E

DD37E-TRT-Dr : ARNVDGEQKRTLTESDGRLLSVLAKKGG-----YIGH : 338
DD37E-TRT-Mz : ARNVDGEQKRTLTESDGRLLSVLAKKGG-----YIGR : 338
DD37E-TRT-Hb : ARNVDGEQKRTLTESDGRLLSVLAKKGG-----YIGR : 338
DD37E-L18-Acdi : LDQDIDTNDYGFYSLL----- : 353
DD37E-L18-Exdi : LQHTLSLDCAGFYREVG-----YLSM : 357
DD37E-L18-Piim : LDTISQDDIAGFVSKVG-----YIEA : 359
DD37E-MS-Mali : LREVDWSVHHMMGQVKSQIR-ARADGF----- : 348
DD37E-MS-Plmu : IKRPESYLSVMEGVRTKLRE-IADWGP----- : 347
DD37E-MS-Drin : AAKVDRKCYQLKMSNKKNTNRHFIRCKQN----- : 336
DD37E-MS-Opno : IRNIPENLCQNLKMNKTNVRK-AADRGVLSVIKPNQIVSH : 356
DD37E-MS-Adho : CKKYPDSAQTILMSRRKKVRSMAYSKDN----- : 356