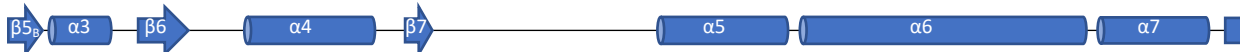


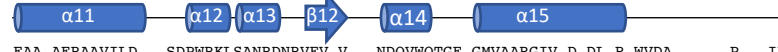
Mt-FecB -----AAAADPGPPTFAHNAAGVSPMEQVPAEAQRIVVL-S-GDQLDALCALGLQSRIVAALPN-----SS-SS-QPS-----Y-LGTT-VH-----D-LPVGTR-S 142
Mt-FecB2 -----AAVTITHL-----FGQTVIKPEPPKRVVSA-G-YTEQDLDLAVDVV-PIAVTDWF-GD-QPFAVW--P-WAAPK-L-GGAR-PAVLNL-DN 86
Mt-FecB2 -----DDGSVTVRHA-----FGDITIPGPPQRVVSA-G-LTEQDLDLAVGVV-PIAVTDWF-GG-EPFVW--P-WAQRQ-L-AGAQ-PAVLNL-DN 107
Ec-PitE -----EPVQVFTDDL-----GRKVTVPAPHKRVVSL-H-DLDTITPLIELGVP-PVASHGRT-----RPDGSFH-IRS-GAL-LTGV-DF-----DNSSIAFIGT-A 97
Sp-PiaA -----EHAPDKIVLDHA-----FGQTLDDKPERVATI-A-GNHDDVALALGIV-PVGFSAKRVVSA-DK-GVL--P-WTEEK-IKELNGK--ANLFDDL-D 114
Sa-SirA -----TTSIKHAM-----GTTEIKGPKKRVVTL-Y-QGATDVAVALGVK--PVGAVESW--TQ--KP-KFE--Y-IKND-LK-----D-TKIVGQE-P 104
Sa-HtsA -----ASTISVKDEN-----YTFVVKDAKRVVTL-E-YSFADLALADVK--PVGADD--GK-KK--IKPVREK-IG--D-YTSVGT-K 105
Bc-YfiY -----EVVVEHEM-----GKTEVPNAKRVVTL-T-NEGTEALLELGVK--PVGAVESW--TG--DWD-WYP--H-I-KDK-MK-----D-VKVVGD-G 104
Ba-FpuA -----ITIKHAE-----GETPKLDAKRVVTL-E-WVYSEDLLALGVQ--PVGAD--IK-NYNKVVH--TKTK-PS--K-DVVVDGTR-Q 140
Bs-PhuD -----KKKIEYLD-----KTYEVVTPDRIAITGS--VESMEDAKILLDVH--POGAISE--S-GK-FPD--M--FKDI-TD--K-AEPTGE-K-M 85
Sp-PhuD -----TKAFNLKTAGKEKIDIPKPKRVVVM-A-PTYAGGLKYLDA--NIVGVSDQ--VD-QSP--V-LAQK-FK--D-VDKVGA-- 71
Sa-PhuD2 -----ETKSYKMD--GKTVDIPKPKRIAVV-A-PTYAGGLKLG-A-NIVAVNQV--VD-QSK--V-LKDK-FK--G-VTKIG-- 92
Bs-YclQ -----KEQITVKKHQ--LDKNKTKVPKNPKRVVVF-D-FGSLDLDLKLGLDDIVAGLPKQ--V-LPK--Y--LS-K-FK--D-DKYADVGS-L-K 84
Sa-FeuA -----YKAE--NGNVKIPKPKRVVVM-A-DGYGYFKTGLI--NVVGAPEN--VFNK--PY--YKGTNGV--V-ENIGDG-- 105
Sa-IsdE -----GVRIVPT-T-VATLMTLKLKLLP--IVGKPT--SYKT--LPNR-YK--D-VPIIGQP-M 78
Cg-HmuT DPFRTFTGLSIVEDIGDVPVTDNASPA--LPVSLTDAD--GNDVVVE-DVSRILPL-DLYGTYSKTIAGLGLVDNIVGRTVS--ST--E-P-A-LA--D-TEVVTTGGH 141
Sd-ShuT -----AAERIVVA-G-GSLTELIYAMGAGERVVGVDET-----TS--Y--PP-E-TA--K--LPHIGQW-K 69



Mt-FecB APDLRAIAAHPDLILGS--QGLT-P-Q-LYPQLA-AIAPTIVFT--A--AP--GA--DW-ENNRGVGAATARIAAVDALIT--GFAEHATQVGT--KHD--A--TH-FQASI 231
Mt-FecB2 GIQIDRIAALKPDLIVAI--NAGV-DAD-TYQQLS-AIAPTVAQSGGDA--FF--E--PW-KDQARSIGQAVFAADRMRSLIE--AVDQKFAVAQ--RHP-RW--RG-KKALL 180
Mt-FecB2 GIPVEEIAALKPDLIVAT--NAGL-DAD-TYARLS-EIAPTVAQSGSA--FF--E--PW-KDQATIIGQAVFKNAMETELIK--SVDDRFTVKT--DHP-QF--SG-KKALL 201
Ec-PitE DIDIEAIVAAKPDLIITE--P-TR-N-T-PIERLE-KIAPTIVI--D--H--LKGGA-PEIYRKLAEELGTQSQSLAILER--RYQAQINAKLA--TLD-S--QK--ITVSV 185
Sp-PiaA GLNFEAISNSKPDVILAG--YSGI-TKE-DYDFTLS-KIAPVAAY--KSKPQ--TL--W-RDMIKIDSKALGMEKEGDELIK--NTEARISKELEKHPKIGK--I--KG-KKVL 211
Sa-SirA APNLEEISKLKPDLIIVS--KRN-E-K-VYDQLS-KIAPTIVST--D--V--D--KF-KDITKLMGKALGKEKEADELLK--KYDDKVAAFQK--DAKAKYDAMP--LKASV 197
Sa-HtsA QPNLEEISKLKPDLIAD--SS--H-K-G-INKELN-KIAPTLSSL--K--SPD--GD--YKQN--NSFKTIKALNKEKEGEEKR--EHDKLINKYKD--ELK--F--DRN--QKVL 198
Bc-YfiY QVNVEIASLKPDLIIGN--KMH-E-K-VYEQLE-AIAPTIVS--E--TL--G--EW-KDNFKFYAKALNKEKEGQKVVA--DYESRMDLKG--KLG-DK--VN--QKISM 160
Ba-FpuA QPNLEEISKLKPDLIITA--SFRG-K-A-KNLEK-KIAPTIVM--D--PSTSNNDHF--AEMETFKQIAKAVGKEEGEKVLA--DMFKAFADAKA--KIE--KADLK--KNIAM 201
Bs-PhuD ENPIEKILEMPPDILAS--TFP-P-EKTLQKIS-TAGTITIV--SH--IS--SNW-KENMLLAQLQKKEKAKKIIA--DYEQDLKETKT--KKNDKA--KD--SKALV 176
Sp-PhuD E-DVEKVASLKPDLIITY--NTD-K--NNTDLK-KIAPTIAF--D--Y--AKYN-LEQOEAMGDVIGKSDVEKWKKA--DWEKQTAQDSK--DKK-AHLGD--TSVTI 160
Sa-PhuD2 DGDVEKVAKEKPDLIIVY--S-T-D-K-DIKKYQ-KVAPTIVV--D--YN--KH--KY-LEQOEHLGKIVGKEDKVKAWK--DWEETAKDGG--EIK--KAIGQD--ATVSL 182
Bs-YclQ EPDFDKVAELPDLIIS--ARQ-S-E-SYKEFS-KIAPTIYL--GV--DTAKYMESF-KSDAETIGKIPDKEDKVKDELA--NIDHSIADVKK--T--A--EKLNKNGLV 176
Bs-FeuA -TSVEKVIDLNPDLIIVW--TTQG--A-DIKKLE-KIAPTIVAV--K--YD--KL--DN-LEQLKEFAMTGTEDKAEEKWLA--KWDKVVAAAKT--KIKKAV--GD--KTISI 194
Sa-IsdE EPNVEAVKLLKPTHVLSVSTIKDEM-Q-P-FYKQLN-M--KGYF--Y--DF--DS--LKM-GKSTIQDQFNRRKAQAKELND--HLNSVKQKIEH--KAA--QKKH--PKVLI 171
Cg-HmuT TLNAEAILNLHPTLVIIID--HSGIQR-E-VIDQIRAAAGVATVIM--S--PQ--RS--IASI-GDDIRDIASVVLPEGEKLAERSVAEVEASTVVD--ELT--PEDP--LKMVF 238
Sd-ShuT QLSSEGILSLRPDSVITW--QDAG-P-QIVLDQLRAQKVNVTLL--P--R--V--PA--TLEQM-YANIRQLAKTLQVPEGGDALVT--QINQRLERVQQ--NVA--AKKAP--VKAMF 165



Mt-FecB VQLTA--N---TMRVYG-ANNF-PASVL-S-AVGDRPPQRS--F-----TDK--A-YIEIGTAAADLAKSPDF-S-AAD-ADIVY-----LSCA--S 300
Mt-FecB2 LQGRLL--W--QGNVATL-AGWR--TDFL-N-DMGLVIADSIK--P-----FAVD--Q-RGVIP--RDHKA-VLDAADVLI-----WMTF--E 244
Mt-FecB2 LGGLT--Y--RGGVQATP-PGWR--TDFL-T-QMGLTVLQV-----PALIP--RDEIAS-VLDGADVLI-----WTTF--E 257
Ec-PitE IQANQ--G--KINVMH-SYHS-LGRVL-R-DAGFRPPLIE-SI-----PEG-G-RMDVSA--ERL-P-ELD-ADVF--VVKV--G 249
Sp-PiaA TMINAADTS--KFWIYV-SKDP-RANYL-T-DLGLVPEESL-KEF--ESEDSEF-AKETSAB--EANKINDAD-VIITGDDKTLEALQKDPLLGKINAIKNGAVAVIPD-N 308
Sa-SirA VNFRA--D--HTRIYA-GGY-AGEEL-N-DLGFKRNKDLQ-KQV--DNG-KD-I-OLTS--KESI-P-LMN-ADHIF--VVKV--D 261
Sa-HtsA AVVRA--A--GLLAIR-P-NYSY-VGQFL-N-ELGFKN--ALS--DDVTKGLSKVLKG--P-YLQLD--T-HL-ADLNP-E-RMI--IMTD-H 266
Bc-YfiY VRFMP--G--DVRUYH-GDVT-SGVIL-K-ELGFKRPGDN--K--D--D--F-AERNVS--KERI-S-AMD-GDVLFF--YFTF--D 198
Ba-FpuA AQAFI--A--AKNVPFRLT-DNSL-ALQVT-K-KLGLTNT-FEA--G--KSEPDG-FKQIT--VESL-Q-SVQ-DSNFI--YIVA--D 267
Bs-PhuD IRIRO--G--NIYIY-P-EQVY-FNSYLYG-DLGLKAPNEVK--A--A--K-A--F-DELIS--LEKL-S-EMN-PDHF--VQFS--D 237
Sp-PhuD FEDFD--K--KIVAYG-KNWGRGSEVLVQ-AFLGLQMPKALD-DAT--KKE-G-WTEVPK--EEV-G-KYA-GDVII--TAKA--K 225
Sa-PhuD2 FDFPD--K--KLYTYGDNWR-GGEVL-YQAFGLKMQPQE-KLT--KAS-G-WAEVQK--EEI-E-KVA-CDYIV--STSE--G 247
Bs-YclQ IMAND--K--KISAFG-PKSR-YGLIH-D-VFGVAPA-DQN--I-----KAS--THGQSVS--YEYI-S-KTN-PDYLF--VIDRGTATG 241
Bs-FeuA MQTNG--K--DIVVFG-KDFGRGGSIIYK-DLGLQATKLTKERAI--DQG-PG-YTSSIS--EKL-P-DFA-GDYIF--AGPW--Q 261
Sa-IsdE LMGVPI--G--SYLVAT-DKSY-LGDVL-K-IAGENV-IR--V-----KDR-Q-YTSSN--TENL-L-NIN-PDIIIL--RHLH--GMP 232
Cg-HmuT LVARQ-TGG--VFPILG-DAYG-GRDLI-E--GLGGVD-MAA--E-----KGIM-D-LAPA--NAEA-LAEIN-PDVVF--MMSG--L 301
Sd-ShuT ILSAGG--S--APQVAG-KGSV--DAIL-S-LAGAEN-VAT--H-----Q-Q-Q-VKSY--SAESI-I-AAN-PEVIV-----VTSQ--D 222



Mt-FecB -----EAA-AERAAVILD-----SDPWRKLSANRDNRVFV-V--NDQVWQTGE-GMVAARGIV-D-DL-R-WVDA-----P--IN 359
Mt-FecB2 -----S-PEDKALLA--DPEIAASQATAQRHRIF-TSKELAGAIA-FS-SVLSPVVA-EQLP-P-QISQILG 304
Mt-FecB2 -----S-QDQRDALLA--DPVIAQAATRDRNRIF-TTKELAGAIA-FA-SPLSPVVA-DQLP-P-ELARVLG 317
Ec-PitE -----DTGGV-PQDELATMEKVMPCWQFLTACRSGRYVL-I-----SREEAI-SN-SFASLGLMA-AQI-QSQIAGRPL--P 312
Sp-PiaA -----TPLASACT--P-TPLSINYTI-EEYL-N-LLGNACKNAK 341
Sa-SirA PNAKDAALV-KKTESWTS--SKWKNLDAVKNQVSDLL--DEITWNLAG-GYKSSKLKI-D-DL-YEKLNIKQ 328
Sa-HtsA -----AKKDSAEFKLQE--DATWKKLNVAKNRNRDI-V--DDVWAQ--GLISSEEMA-K-EL-VELSCK 324
Bc-YfiY -----KGNKQK-SLESEKYEIN--DPLPKNLNAVKNKAYK-V--DDVIWNTAG-GVIAANLLL-D-DIEK-RFV 281
Ba-FpuA -----E--DNIFDQLK--GNPAWELKFKKKNMYK-L--KQDTWIF-G-GPESATSLA-T-K-AA-AEKLQ-KNLA 322
Bs-PhuD -----DENADK-PDAKLEK--NPINKSLKAVKEDHVYV-N-SVDPLA--QGG-TAWSKVRFL-K-AA-AEKLQ-KNLA 301
Sp-PhuD -----D--AAQP-EFQK--TAMQNLKAVQNKYAFN-V--DSSVYV-YN-DPYTLDFMR-K-DL-KKLLA-LPT 281
Sa-PhuD2 -----K-P-TPG--YEST--NM-WKNLKATKEGHIVK-V--DAGT-YWYN-DPYTLDFMR-K-DL-KEKLKAAK 302
Bs-YclQ -----ETS--STQGVVE--NDYKKNVAVKNHGVIIY-L--DSATWYLSGGGLESMTQMI-K-EV-KDGLKEN 299
Bs-FeuA -----SG--GDDGQVF--SISWKNLNAVKNHGVIIY-M--DPVIGPYFT-DPISLEBQLE-F-IT--ESLTKL 316
Sa-IsdE -----EVV-KKMFQKFE--QNDIKWFKKAVKNHVVYD-L--EEVPPGITA-NVD-ADKAM-T-QL-YDLFYK 289
Cg-HmuT -----V-S-TGCDLGLME--RPGIAQFTAGQNRVLA-L--PQQSL-AF-GAQ-TGELLR-AS-R-ELYV-Q 356
Sd-ShuT -----MV-DGD-INRLR--SIAGITHTAAWKNQRIITV--DQNLIL-GM-GPR-IADV-E-SLHQQLWP 277