



(c) **BoFR1a** MAVRNGY---AHRPSTREEEQPSS-AMI-----RRR-EAQATVETVPTNIETTIEQSNDPQFLKSTVDLTALAA
BoFR1b MAFRNDSLIPARDPSTRENK-PSSP-TI---QR-----TVPTNTEITIEQSNHPQFLKSIDDLTAFAA
ThFRI MIPARGYS--HHYPSTTEEK-PSSPATIPRLHQDQSE-RR-GDFPAINRTEPTNKEITSGDSKHPQFMKSIDDLAKFSA
AtFRI -----MSNYPTVAA-QPTTTA-NPLL-QRHQSEQRRR-ELPKIVETESTSMDITIGQSKQPQFLKSIDELAAFSV
AlIFRI -----MANYPPTVAA-Q-SSTAAPILLHQHQSE-RRRGELPAVVETESTAMEISIGQSKQPQFLKSIDELAAFSV
AlpFRI -----MANYPPTVAA-Q-SSTAAPILLHQHQSE-RRRGELPAVVETESTAMEISIGQSKQPQFLKSIDELAAFSV

BoFR1a AVNAFKRRYDELQSHMDYIENAIKSLKNTGIV-EIAAVS-----PPPKDASGETATATAC-QSPPK-----
BoFR1b AMDAFKRHYDDLQNHMDYIKNAIGSSLKFKGIIAESPSRS---Q-----SPRNDASGETATAVAAQSPPKETSETVPE
ThFRI AFDARFRHYDDLQKHMDIENAIKSKFKSNG-V-DD---SSS-H-----SPEHDASREIATAIVC-PPPEEAETAPEM
AtFRI AVETFKRQFDDLQKHIESIENAIKSKLESNGVVL---AARNNNFHQPMLSPPRNNVSVETTVTVL--SQ-PSQ---EIVPE
AlIFRI AVEAFKRQFDDLQKHIDSIEAIKSKLSNG--ADLAA-SSNFHQPLLSPPRNNVSVETTVTVL--SQ-SSQEPAETVPE-
AlpFRI AVEAFKRQFDDLQKHIDSIEAIKSKLSNG--ADLAA-SSNFHQPLLSPPRNNVSVETTVTVL--SQ-SSQEPAETVPE-

BoFR1a ----QKSEAERLCESMCKSLRRYMFVNISERAKLIEELPGALKLAKDPAKFVLDICIGKFYLQGRKAFANDSPAITARKV
BoFR1b I-S-DKVE--RLCELMCKSLRRYMYSNISDRAKLIEELPAALKLAKPAKFVLEICIGKFFLQGRKAYASDSHMIARQV
ThFRI ITSNDKAEQORLCESMCKSLRKRYTYANISERAKLMEEIPAGLKLAKPAKFVLEICIGKFYLQGRKAFSHDSHMIARQV
AtFRI -TSN-KPEGGRMCELMCKSLRKRYTYANISDQAKLMEEIPSAKLAKPAKFVLDICIGKFYLQGRRAFTKESPMVSARQV
AlIFRI -TSN-KTEGERLCELMCKSLRKRYTYANISDRAKLMEEIPSAKLAKPAKFVLEICIGKFYLQGRRAFTKESPMVSARQV
AlpFRI -TSN-KTEGERLCELMCKSLRKRYTYANISDRAKLMEEIPSAKLAKPAKFVLEICIGKFYLQGRRAFTKESPMVSARQV

BoFR1a SLLVLECYLLTFDPEGEK-KQVG-SSVKDEAEAAVAVKKRLVGGWLGAAEAVDARGLLLLVACFGIPESFKSMDLLNL
BoFR1b SLLILECYLLMLDPSEKKP--IDGSIKDEAEAAVAVKKRMNEGRLAAAEAMDARGLLLLIACFGIPSSFKSMDLFDL
ThFRI SLLILECYLLMLPEGEEKVKSMTIESSVKEEAEAAVAVKKRIMNEGKLATHEADARGLLLLIACFGVPPSSFRSMDLLDL
AtFRI SLLILESFLMLPDRGKGKVK--IESWIKDEAETAAVAVKKRLMTEGGLAAAEKMDARGLLLLVACFGVPSNFRSDLLDL
AlIFRI SLLILESFLMLPDRGKGKVK--IESCIKDEAETAAVAVKKRLMSEGGLAAAEKMDARGLLLLVACFGVPSNFRSMDLLDL
AlpFRI SLLILESFLMLPDRGKGKVK--IESCIKDEAETAAVAVKKRLMSEGGLAAAEKMDARGLLLLVACFGVPSNFRSMDLLDL

BoFR1a IRQSGTAETVGAALKRSPFLVPMMSGIVDSSIKRGMHIEALEMVYTFGMEDRFPSSILTSFLRMSKESFERAKRKAQAPM
BoFR1b VRKSGTAETIAAALKRSPFLVPMMSGIVDLSTKRGKHIEALGMITYTFGIEDRFSASSLLTSFLRMSKESFERAKOKAQAPI
ThFRI IRQSGTSEIAGALKRSPFLVPIVSGIVDSCLRGTNIEALEIVTFGMEDKIPSSLLTPFLRKSKESEFELAKRKAHSPT
AtFRI IRMSGSEIAGALKRSPFLVPMVSGIVESSIKRGMHIEALEMVYTFGMEDKFSAAVLTSFLKMSKESFERAKRKAQSPIL
AlIFRI IRMSGSEIAGALKRSPFLVPMISGIVESSIKRGMHIEALEMVYTFGMEDKFSASSVLTSFLRMSKESFERTKRKAQSPIL
AlpFRI IRMSGSEIAGALKRSPFLVPMISGIVESCIRKGMHIEALEMVYTFGMEDKFSASSVLTSFLRMSKESFERTKRKAQSPIL

BoFR1a ASKTANEKQLDALSSVMKCLEAHKLDPVKEVPGWQIQEQMAKLEKEIVQLDKQMEEARISISMEEARSISLREEAAISER
BoFR1b AFKEARNOKFLAALLSVMKCLEAHNLDPEKEVQGWQIKEQMIKLEKDLQLDKQMQ-----GEARSISLMEETALTKR
ThFRI AFKEATIEKQLAALLSVTKCLEAHKLDPAKEIPGWPIKEQIVKLEKDLQLDKQME-----EQARSISLMEEAVALTKR
AtFRI AFKEAATKQLAALLSSVMQCMETHKLDPAKELPGWQIKEQIVSLEKDLQLDKQME-----EKARSISLMEEAALAKR
AlIFRI AFKEAATAKQLAALLSSVMRCMETHKLDPAKELPGWQIKEQIVNLEKDLQLDKQME-----EKARSISLMEEAVALAKR
AlpFRI AFKEAATAKQLAALLSSVMRCMETHKLDPAKELPGWQIKEQIVNLEKDLQLDKQME-----EKARSISLMEEAVALAKR

BoFR1a LYNQMKRPRLSEREMPPTASLSYSPMYRQDSFSPSHREGDAEISALVSSYLGPSAGFPHRSSLRSSPEYMPV-P-GGLG
BoFR1b LYNQMKRPRLSDMEMPPAASSSYSSSTYPARSFPSHRD---DEISALVSSYLEPSPGFPHRSSLRSSPEYLAPPS--GLG
ThFRI LYNQMKRPRLSEMEMPAAASSSYSPYDRNFSHIDGRDEISALVSSYLGPSSSFPHRSSLRSSPEYMPV-P-GGLG
AtFRI MZNQIKRPRLSPMEMPPVTSSSYSPYDRSFPQSRDDQDEISALVSSYLGPSSTSPPHRS--RRSPEYMPVLPHGGLG
AlIFRI IYNQMKRPRLSPMEMPPVASSSYSSSTYLRDSFHSQRDEDRDEISALVSSYLGPSSSFPHRSSLRSSPEYIVPLPPGGLG
AlpFRI IYNQMKRPRLSPMEMPPVASSSYSSSTYLRDSFHSQRDEDRDEISALVSSYLGPSSSFPHRSSLRSSPEYIVPLPPGGLG

BoFR1a RSVSAYDHQPPNSYSF-----VSRRYSP--VHGQRLPOEYSLPVHGQHMPYG-L---YRHSPSVERYLALSNHRTPRNL
BoFR1b RSVPAYEHLPPTSYLP-----LPRRHSP--VHGQRLPGEYSPPIHGQEQISYGLQORVYRHSPSVERYLALPHHRSPRNS
ThFRI RSVSAYEHLPPSSY-----SP--VHGQRLPREYSPPVHGQQQIPYG-LQRYVYRHSPSVERLLTLPHHRSPRNS
AtFRI RSVYAYEHLAPNSYSPGHGRLHRQYSPSLVHGQRHPLQYSPPIHGQQQLPYG-LQRYVYRHSPSEERYLGLSNHRSPRNS
AlIFRI RSVYAYEHLPPNSYSPGHGRLPRQYSPSPVHGQRHPRQYSPPIHGQQQIPYG-LQRYVYRHSPSEERYLGLSNHRSPRNS
AlpFRI RSVYAYEHLPPNSYSPGHGRLPRQYSPSPVHGQRHPRQYSPPIHGQQQIPYG-LQRYVYRHSPSEERYLGLSNHRSPRNS

BoFR1a SQRIGGM
BoFR1b -----
ThFRI SQDHIGGM
AtFRI SS--LDPK
AlIFRI SS--LDPK
AlpFRI SS--LDPK