

MAAVVLENGVLSRKLSDFGQETS YIED NSNQNGA IS LI FS SLKEEVGALAKVLRLFEENDINLTHIESRPSRLNKDEYE FF TYLDK R TKPVLGSIIKSLRNDIGATVHELSDRDK E KNTPVPWFPRTIQELDRFANQILSYGAELDAD	PH4H Rattus norvegicus
MAAVVLENGVLSRKLSDFGQETS YIED NSNQNGA VS LI FS SLKEEVGALAKVLRLFEENEINLTHIESRPSRLNKDEYE FF TYLDK R SKPVLGSIIKSLRNDIGATVHELSDRDK E KNTPVPWFPRTIQELDRFANQILSYGAELDAD	PH4H Mus musculus
MSTAVLENPGLGRKLSDFGQETS YIED M C NQNGA IS LI FS SLKEEVGALAKVLRLFEENDVNLTHIESRPSRLNKDEYE FF THLDK R SLPALTNIIKILRHDIGATVHELSDRDK K KDTPVPWFPRTIQELDRFANQILSYGAELDAD	PH4H Homo sapiens
MSALVLESRALGRKLSDFGQETS YIEG NSDQN AV SLI FS SLKEEVGALARVLRLFEENDINLTHIESRPSRLNKDEYE FF TNLDQ R SVPALANI IK ILRHDIGATVHELSDRDK K KDTPVPWFPRTIQELDNFANQVLSYGAELDAD	PH4H Bos taurus
.....MNDRADFVVPD..	PH4H Chromobacterium violaceum
.....MAIATPTSAAPTPAPAGF	PH4H Ralstonia solanacearum
.....MSG.....	PH4H Caulobacter crescentus
.....MSVAEYAR.....	PH4H Pseudomonas aeruginosa
	PH4H Rhizobium loti

HPGFKDPVYRARRKQFADIAYN YRH GQPIPRVEYTEEEKQ T WGTVFRTLKALYKTHACYE HN HI F P L LEKYCGFREDNIPQLEDVSQFLQ T CTGFR L RPVAGLLSSRD F LGG L AFRVF H CTQYIRHGSKPMYTPEPDICHELLGH	PH4H Rattus norvegicus
HPGFKDPVYRARRKQFADIAYN YRH GQPIPRVEYTEEE R K T WGTVFRTLKALYKTHACYE HN HI F P L LEKYCGFREDNIPQLEDVSQFLQ T CTGFR L RPVAGLLSSRD F LGG L AFRVF H CTQYIRHGSKPMYTPEPDICHELLGH	PH4H Mus musculus
HPGFKDPVYRARRKQFADIAYN YRH GQPIPRVEYMEEEK K TWGTVF K TLKSLYKTHACYE Y NHI F P L LEKYCGFHEDNIPQLEDVSQFLQ T CTGFR L RPVAGLLSSRD F LGG L AFRVF H CTQYIRHGSKPMYTPEPDICHELLGH	PH4H Homo sapiens
HPGFKDPVYRARRKQFADIAYN YRH GQPIPRVEYTEEEK K TWGTVFRTLKSLYKTHACYE HN HI F P L LEKYCGFREDNIPQLEEVSQFLQ S CTGFR L RPVAGLLSSRD F LGG L AFRVF H CTQYIRHGSKPMYTPEPDICHELLGH	PH4H Bos taurus
...ITTRKNVGLSHDAN.....DFTLPQPLDRYSAEDHATWATLYQRQCKLLPGRACDEFMEGL....ERLEVDADRVPDFNKLNQK L MAATGWKIVAVPGLIPDDVFFEHLANRRFPVTWWLREPHQLDYLQEPDVVFHDLFGH	PH4H Chromobacterium violaceum
TGTLT D KLREQFAEGLDGQTLRPDFTMEQ P VHRYTAADHATWRTLYDRQEALLPGRACDEF L QGL....STLGMSREGVPSFDRLNETLMRA T GWQIVAVPGLVPDEVFFEHLANRRFPASWWMRRPDQLDYLQEPDGFHDIFGH	PH4H Ralstonia solanacearum
.....DGLSNGPPPGAR.....PDWTIDQGWET Y TQA E HDVWITLYERQTDMLHGRACDEFMRGL....DALDLHRSGTPDFARINEELKRLTGWTVVAVPGLVPDDVFFDHLANRRFPAGQFIRKPHELDYLQEPDIFHDVFGH	PH4H Caulobacter crescentus
.....MKTTQYVARQPD.....DNGFIHY P TEHQVWN T LITRQLK V IEGRACQEYLDGI....EQLGLPHERIPQLDEINRVLQATTGWRVARVPALIPFQTFFELLASQQFPVATFIRTPEELDYLQEPDIFHEIFGH	PH4H Pseudomonas aeruginosa
.....DCAAQGLRGDYS..VCRADFTVAQDYD.YSDEEQAVWR T LCDRQTKL T TRKLAHHSYLDGV....EKLGL.LDRIPDFEDVSTKL R KLTGWEIIAVPGLIPAAPFFDHLANRRFPVTNWLRTRQELDYIVEPDMFHDFFGH	PH4H Rhizobium loti

VPLFSDRSFAQFSQEIG.LASLGAPDEYIEKLAT IY WFTVEFGLCKEG.DSIKAYGAGLLSSF G ELQYCLSD.KPKLLPLELEKTACQEYSVTEFQPLYYVAESFSDAKEKVRTFAATIPRPFSVRYDPYTQRV	PH4H Rattus norvegicus
VPLFSDRSFAQFSQEIG.LASLGAPDEYIEKLAT IY WFTVEFGLCKEG.DSIKAYGAGLLSSF G ELQYCLSD.KPKLLPLELEKTACQEYTVTEFQPLYYVAESFNDAKEKVRTFAATIPRPFSVRYDPYTQRV	PH4H Mus musculus
VPLFSDRSFAQFSQEIG.LASLGAPDEYIEKLAT IY WFTVEFGLCKQG.DSIKAYGAGLLSSF G ELQYCLSE.KPKLLPLELEKTAIQNYTVTEFQPLYYVAESFNDAKEKVRNFAATIPRPFSVRYDPYTQRI	PH4H Homo sapiens
VPLFSDRSFAQFSQEIG.LASLGAPDEYIEKLAT IY WFTVEFGLCKQG.DSIKAYGAGLLSSF G ELQYCLSD.KPKLLPLELEKTAVQEYTTTEFQPLYYVAESFNDAKEKVRNFAATIPRPFSVHYDPYTQRI	PH4H Bos taurus
VPLLINPVFADYLEAYCKGGVKAKALGALPMLARLYWYTVEFGLINTP.AGMRIYGAGILSSKSESTYCLDSASP N RVGFDLMRIMNTRYRIDTFQKTYFVIDSFQQLFDATA.PDFAPLYLQLADAQPWGAGDVAPDDLVLNAG	PH4H Chromobacterium violaceum
VPLLINPVFADYMQAYCQGG L KAARLGALDMLARLYWYTVEFGLIRTP.AGLRIYGAGIVSSKSESVA L DSASP N RIGFDVHRIMRTRYRIDTFQKTYFVIDSFEQLFDATA.PDFTPLYEALGTLP T FGAGDVVDGDAVLNAG	PH4H Ralstonia solanacearum
VPMLTDPVFADYMQAYCEGGRRALGLGRLANLARLYWYTVEFGIMNTP.AGLRIYGAGIVSSRTESIFALDPS P NRIGFDLERVMRTLYRIDDFQQVYFVIDSIQTLQEVTL.RDFGAIYERLASVSDIGVAEIVPGDAVLTRG	PH4H Caulobacter crescentus
CPLLTNPWFAEFTH T TYGKLGLKASKE.ERVFLARLYWMTIEFGIVETD.QGKRIYCGGILSSPKETVYSLS D .EPLHQA F NPLEAMRTPYRIDILQPLYFVLPDLKRLFQLAQ.EDIMALVHEAMRLG.LHAPLFPPKQAA....	PH4H Pseudomonas aeruginosa
VPVLSQPVFADFMQMYGKKAAGDI I ALGGDEMITRLYWYTAEYGLVQEAGQPLKAFGAGLMSSFT E LQFAVEGKDAHHVPFDLETVMRTGYEIDKFQRAYFVLPSFDALRDAFQTADFEAIVARRKDQKALDPATV.....	PH4H Rhizobium loti

LAD S INSEVGILCNALQKIKS	PH4H Rattus norvegicus
LAD S INSEVGILCHALQKIKS	PH4H Mus musculus
LAD S INSEIGILCSALQKIK.	PH4H Homo sapiens
LAD S ISSEVEILCSALQKIK.	PH4H Bos taurus
DRQGWADTEDV.....	PH4H Chromobacterium violaceum
TREGWADTAD I	PH4H Ralstonia solanacearum
T.QAYATAGGRLAGAAAG...	PH4H Caulobacter crescentus
.....	PH4H Pseudomonas aeruginosa
.....	PH4H Rhizobium loti

☐ non-conserved
☒ ≥ 50% conserved