```
H.sapiens      MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDSFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVL
B.taurus       MRECISVHVGQAGVQMGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDSFTTFFCETGAGKHVPRAVFVDLEPTVIDEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVL
R.norvegicus   MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDSFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVL
S.scrofa       MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDSFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVL
C.griseus      MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDSFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVL
O.aries        MRECISVHVGQAGVQMGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDSFTTFFCETGAGKHVPRAVFVDLEPTVIDEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVL
D.melanogaster MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTVG-GGDDSFNTFFSETGAGKHVPRAVFVDLEPTVVDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIVDLVL
S.cerevisiae   MREVISINVGQAGCQIGNACWELYSLEHGIKPDGHLEDGLSKPKGGEEGFSTFFHETGYGKFVPRAIYVDLEPNVIDEVRNGPYKDLFHPEQLLSGKEDAANNYARGHYTVGREILGDVL
A.castellanii  MRECISIHVGQAGVQMGNSCWELYCLEHGLNPDGTLQEGKTS---TPLAFSTFFSESGSGKYVPRAVYFDLEPSVVDAVKQGPQAKLFHPESLMSGKEDAANNYARGHYTTGKNLIENTL

P.falciparum   MRECVSIHVGQAGIQMGNACWELFCLEHGIQPDGQMPSDKASR-ANDDAFNTFFSETGAGKHVPRCVFVDLEPTVVDEVRTGTYRQLFHPEQLISGKEDAANNFARGHYTIGKEVIDVCL
D.carota       MRECISIHIGQAGIQMGNACWELYCLEHGIQPNGQMPSDKTVG-GGDDAFNTFFSETGAGKHVPRAIFVDLEPTVIDEVRTGTYRQLFHPEQLISGKEDAANNFARGHYTIGKEIVDLCL
P.sativum      MRECISIHIGQAGIQMGNACWELYCLEHGIQPDGQMPSDKTVG-GGDDAFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGAYRQLFHPEQLISGKEDAANNFARGHYTIGKEIVDLCL
A.thaliana     MRECISIHIGQAGIQMGNSCWELYCLEHGIQPDGMMPSDTTVG-VAHDAFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGTYRQLFHPEQLISGKEDAANNFARGHYTVGKEIVDLCL
S.viridis      MRECISIHIGQAGIQMGNACWELYCLEHGIQPDGHMPGDKSAG-HYDDAFTTFFSQTGAGKYVPRAIFVDLEPTVIDEVRTGIYRQLFHPEQLISGKEDAANNFARGHYTIGKEIVDLCL
E.elusine      MRECISIHIGQAGIQMGNACWELYCLEHGIQADGQMPGDKTIG-GGDDAFNTFFSETGAGKHVPRAVFVDLEPTVIDEVRTGTYRQLFHPEQLISGKEDAANNFARGHYTIGKEIVDLCL
O.sativa       MRECISIHIGQAGIQMGNACWELYCLEHGIEPDGTMPSDTTVG-VAHDAFNTFFSETGAGKHVPRAIFVDLEPTVIDEVRTGSYRQLFHPEQLISGKEDAANNFARGHYTVGKEIVDLCL
Z.mays         MRECISIHIGQAGIQMGNACWELYCLEHGIEHDGTMPSDSSVG-VAHDAFNTFFSETGSGKHVPRAIFVDLEPTVIDEVRTGSYRQLFHPEQLISGKEDAANNFARGHYTVGKEIVDLCL
C.reinhardtii  MRECVSIHIGQAGIQMGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDAFNTFFSETGAGKHVPRCIFLDLEPTVVDEVRTGTYRQLFHPEQLISGKEDAANNFARGHYTIGKEIVDLAL
T.thermophila  MRECVISIHVGQGGIQMGNACWELYCLEHGIQPDGQMPSDKTIG-GGDDAFNTFFSETGAGKHVPRAVFLDLEPTVIDEVRTGTYRQLFHPEQLISGKEDAANNFARGHYTIGKEIVDLCL
G.lambia       MRECISVHIGQAGVQIGNACWELYCLEHGIQHDGQMPSDKTIG-GGDDAFNTFFSETGAGKHVPRAVFVDLEPTVVDEVRAGSYRQLYHPEQLISGKEDAANNYARGHYTIGKEIVDLVL
N.gruberi      MRECVSIHIGQAGVQIGNACWELYCLEHGIQPDGLMPSSKTIG-VEDDAFNTFFSETGAGKHVPRAVFLDLEPTVVDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIVDLCL
T.gondii       MRECVSIHVGQAGIQMGNACWELFCLEHGIQPDGQMPSDKTIG-GGDDAFNTFFSETGAGKHVPRCVFLDLEPTVVDEVRTGTYRHLFHPEQLISGKEDAANNFARGHYTIGKEIVDLSL
L.tarentolae   MREAICIHIGQAGCQMGNACWELFCLEHGIQPDGSMPSDKCIG-VEDDAFNTFFSETGAGKHVPRCLFLDLEPTVVDEVRTGTYRQLFNPEQLVSGKEDAANNYARGHYTIGKEIVDLAL
T.brucei       MREAICIHIGQAGCQMGNACWELFCLEHGIQPDGAMPSDKTIG-VEDDAFNTFFSETGAGKHVPRAVFLDLEPTVVDEVRTGTYRQLFHPEQLISGKEDAANNYARGHYTIGKEIVDLCL
               *** *.:::**.* *:**:****:.****::.:* :  .         .*.*** ::* **.***.::.****.*:* :: *   .*::**.*::********:****** *::::   *

H.sapiens      DRIRKLADQCTGLQGFIVFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLIGQIVSSIT
B.taurus       DRIRKLSDQCTGLQGFIVFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLISQIVSSIT
R.norvegicus   DRIRKLADQCTGLQGFIVFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLIGQIVSSIT
S.scrofa       DRIRKLADQCTGLQGFIVFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLISQIVSSIT
C.griseus      DRIRKLADQCTGLQGFIVFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLISQIVSSIT
O.aries        DRIRKLSDQCTGLQGFIVFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLISQIVSSIT
D.melanogaster DRIRKLADQCTGLQGFIIFHSFGGGTGSGFTSLLMERLSVDYGKKSKLEFAIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYTNLNRLIGQIVSSIT
S.cerevisiae   DRIRKLADQCDGLQGFIFTHSLGGGTGSGLGSLLLEELSAEYGKKSKLEFAVYPAPQVSTSVVEPYNTVLTTHTTLEHADCTFMVDNEAIYDMCKRNLDIPRPSFANLNNLIAQVVSSVT
A.castellanii  DKIRKLADDCEGLQGFIIFHSVGGGTGSGFGSLLLERLSVDYAKKSKLDFCVYPSPQISTSVVEPYNSVLSTHSLLEHTDVAFMLDNEAIYDICRTNLGLEKPTYQNLNRIIAQVISSLI

P.falciparum   DRIRKLADNCTGLQGFIMFSAVGGGTGSGFGCLMLERLSVDYGKKSKLNFCCWPSPQVSTAVVEPYNSVLSTHSLLEHTDVAIMLDNEAIYDICRRNLDIERPTYTNLNRLIAQVISSLI
D.carota       DRIRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTVYPSPQISTSVVEPYNSVLSTHSLLEHTDVSVLLDNEAIYDICKRSLDIERPTYTNLNRLVSQVISSLT
P.sativum      DRIRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTVYPSPQVSTSVVEPYNSVLSTHSLLEHTDVAVLLDNEAIYDICRRSLDIERPTYTNLNRLVSQVISSLT
A.thaliana     DRVRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTIYPSPQVSTAVVEPYNSVLSTHSLLEHTDVAVLLDNEAIYDICRRSLDIERPTYTNLNRLISQIISSLT
S.viridis      DRIRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTVYPSPQVSTSVVEPYNSVLSTHSLLEHTDVSILLDNEAIYDICRRSLDIERPNYSNLNRLVSQVISSLT
E.elusine      DRIRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTVYPSPQVSTSVVEPYNSVLSTHSLLEHTDVAVLLDNEAIYDICRRSLDIERPTYTNLNRLVSQVISSLT
O.sativa       DRVRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTIYPSPQVSTAVVEPYNSVLSTHSLLEHTDVAVLLDNEAIYDICRRSLDIERPTYTNLNRLISQIISSLT
Z.mays         DRVRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTIYPSPQVSTAVVEPYNSVLSTHSLLEHTDVAVLLDNEAIYDICRRSLDIERPTYTNLNRLISQIISSLT
C.reinhardtii  DRIRKLADNCTGLQGFIVFNAVGGGTGSGLGSLLLERLSVDYGKKSKLGFTVYPSPQVSTAVVEPYNSVLSTHSLLEHTDVAVMLDNEAIYDICRRSLDIERPTYTNLNRLIAQVISSLT
T.thermophila  DRIRKLADNCTGLQGFIVFNSVGGGTGSGLGSLLLERLSVDYGKKSKLGFTIYPSPQVSTAVVEPYNSILSTHSLLEHTDVAVMLDNEAIYDICRRNLDIERPTYTNLNRLIAQVISSLT
G.lambia       DRVRKLADNCSGLQGFIIFHSFGGGTGAGFGSLFLERLSVDYGKKSKLEFVVYPSPQIATAVVEPYNTILAAHSMLEHSDCAFMVDNEAMYDICRRNLDIERPTYTNLNRLIAQCISSLT
N.gruberi      DRIRKLADNCTGLQGFIVFSSVGGGTGSGLGALLLERLSVDYGKKSKLGFTVYPSPQVATAVVEPYNSVLSTHALLEHTDVAVMLDNEAIYDICRRSLDIQRPTYTNLNRLIAQVISSLT
T.gondii       DRIRKLADNCTGLQGFIVFNAVGGGTGSGLGCLLLERLSVDYGKKSKLNFCSWPSPQVSTAVVEPYNSVLSTHSLLEHTDVAVMLDNEAIYDICRRNLDIERPTYTNLNRLIAQVISSLT
L.tarentolae   DRIRKLADNCTGLQGFIVFHAVGGGTGSGLGALLLERLSVDYGKKSKLGYTVYPSPQVSTAVVEPYNCVLSTHSLLEHTDVATMLDNEAIYDLTRRSLDIERPSYTNVNRLIGQVVSSLI
T.brucei       DRIRKLADNCTGLQGFIVFHAVGGGTGSGLGALLLERLSVDYGKKSKLGYTVYPSPQVSTAVVEPYNSVLSTHSLLEHTDVAAMLDNEAIYDLTRRNLDIERPTYTNLNRLIGQVVSSLI
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H.sapiens      ASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPA
B.taurus       ASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPA
R.norvegicus   ASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPA
S.scrofa       ASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPA
C.griseus      ASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPA
O.aries        ASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPA
D.melanogaster ASLRFDGALNVDLTEFQTNLVPYPRIHFPLVTYAPVISAEKAYHEQLSVAEITNACFEPA
S.cerevisiae   ASLRFDGSLNVDLNEFQTNLVPYPRIHFPLVSYSPVLSKSKAFHESNSVSEITNACFEPG
A.castellanii  ASLRFDGALNVDINEFQVNLVPYPRIHFPLISYAPLITPEKSRHENLSVQALTTAVFEPA

P.falciparum   ASLRFDGALNVDVTEFQTNLVPYPRIHFPLSSYAPVVSAEKAYHEQLSVSEITNSAFEPA
D.carota       ASLRFDGALNVDVTEFQTNLVPYPRIHFPLSSYAPVISAEKAYHEQLSVAEITNSAFEPS
P.sativum      ASLRFDGALNVDVTEFQTNLVPYPRIHFPLSSYAPVISAEKAYHEQLSVAEITNSAFEPS
A.thaliana     TSLRFDGALNVDITEFQTNLVPYPRIHFPLSSYAPVISAAKAYHEQLSVPEITNAVFEPA
S.viridis      ASLRFDGALNVDVNEFQTNLVPYPRIHFPLSSYAPVISSEKAYHEQLSVSEITNSAFEPA
E.elusine      ASLRFDGALNVDVNEFQTNLVPYPRIHFPLSSYAPVISAEKAYHEQLSVAEITNSAFEPS
O.sativa       TSLRFDGALNVDITEFQTNLVPYPRIHFPLSSYAPVISAEKAYHEQLSVPEITNAVFEPS
Z.mays         TSLRFDGALNVDVTEFQTNLVPYPRIHFPLSSYAPVISAEKAYHEQLSVPEITNAVFEPS
C.reinhardtii  ASLRFDGALNVDITEFQTNLVPYPRIHFPLSSYAPIISAEKAYHEQLSVAEITNAAFEPA
T.thermophila  ASLRFDGALNVDITEFQTNLVPYPRIHFPLSSYAPIISAEKAYHEQLSVAEITNSAFEPA
G.lambia       ASLRFDGALNVDLTEFQTNLVPYPRIHFPLCSYAPIISSEKAYHEKLSVAELTNSVFEPA
N.gruberi      ASLRFDGALNVDVTEFQTNLVPYPRIHFPLCSYAPVISAEKAYHEQLSVAEITNSAFEPA
T.gondii       ASLRFDGALNVDVTEFQTNLVPYPRIHFPLSSYAPIISAEKAYHEQLSVAEITNSAFEPA
L.tarentolae   ASLRFDGALNVDLTEFQTNLVPYPRIHFPLTSYAPVVSAEKAYHEQLSVSDITNSVFEPA
T.brucei       ASLRFDGALNVDLTEFQTNLVPYPRIHFPLTSYAPVISAEKAYHEQLSVSEISNAVFEPA
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= Mitra and Sept site only

= Délye *et al.* site only

= Nyproko *et al.* site only

= Délye *et al.* and Mitra and Sept site

= Nyporko *et al.* and Délye *et al.* site

= Nyporko *et al.* and Mitra and Sept site

= Nyporko *et al.*, Mitra and Sept and Délye *et al.* site