

Aligning Alignments Exactly (AAE)

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... 1avwb_409
... 1tle_409
... 1eyla_409
... SPR1_IPOBA/4
... KTI1_SOYBN/2
... ITPA_SOYBN/2
... IPIA_PSOTE/2
... IDB3_BRYCA/1
... IECI_BRYVA/2
... ICW3_PSOTE/2

... 1avac_409
... 1mbe_409
... WING_FOPSP/3
... IAAS_ORYSA/4
... IAAS_HORVU/2
... ASP_THECC/30
... MIRA_RICDU/3
... IT2_PSOTE/2-
... ITPY_ACACO/2
... ALB1_PSOTE/4

31 AA-PTGNE--R-CELTVVQSRNELDKGIGTIISSP---Y---R-IRFLAEGHPLSLKFD-SFAVIMLCVG-I--P--TE-WSVV--E-D-LP 100 ...
31 LA-KTCEE--T-CELTVVQSRNELDKGIRIISR---L--R-SAFIPDDDKVRIQFA-Y-A---PKCAP--S--PW-WTVV----- 92 ...
35 TA-KTENE--P-CELTVVRSENEVSKGEEPIRISSQ---F---L-SLPIRGLVALGFA-N-P---PSCAA--S--PW-WTVV----- 99 ...
32 LA-HLDM--MSKCATDVIVSENDLNGDFTIIPA---TADPE-STVVMASYQPPFN-I-ATNKH--CVN--N--VN-WGIQ--H-D-SA 104 ...
31 VD-STGKE--I-CELTVVQSRNELDKGIGVFTSP---L--H-ALFLAERYPLSLKFG-SFAVITLCAG-M--P--TE-MAIV---E-RE 99 ...
30 AA-PTGNE--R-CELTVVQSRNELDKGIGTIISSP---Y---R-IRFLAEGHPLSLKFD-SFAVIMLCVG-I--P--TE-WSVV--E-D-LP 99 ...
31 AA-ATGTE--T-CELTVVRSENEVSGEPIRISSQ---L--R-SGFIPDYSVVRIGFA-N-P---PKCAP--S--PW-WTVV--E-D-QP 96 ...
35 LA-KTCEE--T-CELTVVQSRNELDKGIRIISR---L--R-SAFIPDDDKVRIQFA-Y-A---PKCAP--S--PW-WTVV--E-D-EQ 96 ...
31 AA-RTGKE--T-CELTVVQSRNELDKGIRIISR---L--R-SGFIPDYSVVRIGFA-N-P---PKCAP--S--PW-WTVV--E-D-QP 95 ...
31 TA-KTENE--P-CELTVVRSENEVSKGEEPIRISSQ---F---L-SLPIRGLVALGFA-N-P---PSCAA--S--PW-WTVV----- 95 ...
|| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
35 MA-PGHG--RH-CELPVSDPENGQHDGFVRIIPYGV--A---PSDKIRLSTDDVRIQFA-Y---TTC-IQ--S--TE-WHID--S-ELAA 105 ...
31 VV-ATGNEPE-DELSIVKST-RNI-MYATSISSDKTTP---Q-PRNILENMRKINFA-T-D--E--H-K--G--DV-WSVV-----DFQP 99 ...
25 VVNATIN--PI-CMSDVILLST-GIE-GLVPTSEV--INS--T-DGVIREGLTIIVSFD-A--S---TCGMA--GVTM-WKIG--F-NSTA 95 ...
31 MA-PRV--IP-CELLVAQEDERRKGFVRFPMGG--A---ABPRTLRVSTDDVRIQFA-A---TLCVQ--S--TE-MHVG--D-BELT 100 ...
31 MA-PGHG--RH-CELPVSDPENGQHDGFVRIIPYGV--A---PSDKIRLSTDDVRIQFA-Y---TTC-IQ--S--TE-WHID--S-ELAA 100 ...
32 LGRATGO---S-CEIIVVQRSDLDNGTPIVFSNADS---K-DDVVRVSTDDVRIQFA-P---IRDRICST--S--TV-WRLD--NYDNSA 102 ...
31 VS-ATPENGTFVCEPRVVQTRKEVDHRELAFPE-N--P--K-EDVVVSTDDVRIQFA-A-F--MECRWTS--S--TV-WRLDKYD-E-ST 104 ...
31 AA-KVONE--D-CELTVVVQSRNELDKGIRIISR---L--R-STFIPDYSVVRIGFA-N-P---PKCAP--S--PW-WTVV--E-D-QP 96 ...
31 LA-KTGE--S-CELTVVQSRNELDKGIRIISR---L--R-STFIPDYSVVRIGFA-N-P---PKCAP--S--PW-WTVV--E-D-QP 96 ...
29 VV-ATGNEPE-DELSIVKST-RNI-MYATSISSDKTTP---Q-PRNILENMRKINFA-T-D--E--H-K--G--DV-WSVV-----DFQP 96 ...
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| | | a | Profil A | | | |
|---|-----|-----|----------|-----|---|-----|
| A | 0 | 0.4 | 0 | 0 | 0 | 0.2 |
| C | 0.2 | 0 | 0.2 | 0 | 1 | 0.8 |
| G | 0.2 | 0 | 0 | 0.8 | 0 | 0 |
| T | 0.6 | 0.4 | 0 | 0.2 | 0 | 0 |
| - | 0 | 0.2 | 0.8 | 0 | 0 | 0 |

| | | b | Profil B | | |
|---|-----|-----|----------|-----|-----|
| A | 0.1 | 0 | 0.7 | 0 | 0 |
| C | 0.1 | 0.7 | 0 | 0.1 | 0.8 |
| G | 0 | 0 | 0 | 0.7 | 0.2 |
| T | 0.8 | 0 | 0.2 | 0.1 | 0 |
| - | 0 | 0.3 | 0.1 | 0.1 | 0 |

δ seien Einheitskosten

$$d(a,b) = 0.4 \cdot 0.7 \cdot \delta(A,A) + 0.4 \cdot 0 \cdot \delta(A,C) + \dots + \\ + 0.2 \cdot 0.1 \cdot 0 \quad \leftarrow \delta(-,-) = 0$$

$$= 1 - (0.4 \cdot 0.7 + 0 \cdot 0 + 0 \cdot 0 + 0.4 \cdot 0.2 + 0.2 \cdot 0.1) \\ = 1 - (0.28 + 0.08 + 0.02) = 1 - 0.38 = 0.62$$