

1.....10.....20.....
: . *::: **:

```
sp|B2J1M1|ALDEC_NOSP7|-----MQQLTDQSKELDFKSEYKDAYSRIN
tr|U5QDK0|U5QDK0_9CYAN|-----MNRTDESTAAGAPALDYRSEYKDAYSRIN
tr|Q7NGM3|Q7NGM3_GLOVI|-----MN-----RTAPSSAALDYRSDTYRDAYSRIN
tr|Q2JJ13|Q2JJ13_SYNJB|---MNVLNPTPQ-----PLADEGGTTLDYGSAYVRQAYSRIN
tr|Q2JX62|Q2JX62_SYNJA|MAPANVLPNTPP-----SPTDGGGTALDYSSPRYRQAYSRIN
tr|K9RTZ6|K9RTZ6_SYNP3|-----MSP-IQAPTLDYTSYKDAYSRIN
tr|Q8DJB4|Q8DJB4_THEEB|-----MTTA-TATPVLDYHSDRYKDAYSRIN
tr|V5V382|V5V382_9CHRO|-----MTTA-TATPDLDYHSDRYKDAYSRIN
tr|B0C9L0|B0C9L0_ACAM1|-----MPQT-QAISEIDFYSDTYKDAYSRID
tr|B8HSZ3|B8HSZ3_CYAP4|-----MPQV-QSPSAIDFYSEYQDAYSRID
tr|L8LLH3|L8LLH3_9CHRO|-----MQEL-TMPRELDYQSPYKDAYSRIN
tr|K9Z5G1|K9Z5G1_CYAAP|-----MQQ--LVEPTIDFNSDVYKDAYSRIN
tr|I4FNH9|I4FNH9_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4I7T6|I4I7T6_9CHRO|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4HKI6|I4HKI6_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|B0JY93|B0JY93_MICAN|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4GYG9|I4GYG9_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4IM50|I4IM50_MICAE|-----MPEL-AVSELDFTSYKDAYSRIN
tr|I4FD05|I4FD05_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|L7E3D3|L7E3D3_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|L8NPI8|L8NPI8_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|A8YJD6|A8YJD6_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|S3JGS6|S3JGS6_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4GKL8|I4GKL8_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4HLI6|I4HLI6_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4FY74|I4FY74_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|I4H417|I4H417_MICAE|-----MPEL-AVPLELDFTSYKDAYSRIN
tr|M1LIQ1|M1LIQ1_9SYNC|-----MPEL-AVRTEFDYSSEIYKDAYSRIN
tr|H0NYN3|H0NYN3_9SYNC|-----MPEL-AVRTEFDYSSEIYKDAYSRIN
tr|H0PB35|H0PB35_9SYNC|-----MPEL-AVRTEFDYSSEIYKDAYSRIN
tr|H0PG18|H0PG18_9SYNC|-----MPEL-AVRTEFDYSSEIYKDAYSRIN
tr|F7US88|F7US88_SYNYG|-----MPEL-AVRTEFDYSSEIYKDAYSRIN
sp|Q55688|ALDEC_SYNY3|-----MPEL-AVRTEFDYSSEIYKDAYSRIN
tr|D3EPA5|D3EPA5_ATETH|-----MQEL-ALRSELDNFSEYKDAYSRIN
tr|B7JUH1|B7JUH1_CYAP8|-----MQEL-VQRSELDFTNPTYKDAYSRIN
tr|C7QUV0|C7QUV0_CYAP0|-----MQEL-VQRSELDFTNPTYKDAYSRIN
tr|G5J0P0|G5J0P0_CROWT|-----MQEL-AVRSELDFNSETYKDAYSRIN
tr|T2JF13|T2JF13_CROWT|-----MQEL-AVRSELDFNSETYKDAYSRIN
tr|Q4C7T3|Q4C7T3_CROWT|-----MQEL-AVRSELDFNSETYKDAYSRIN
tr|T2IH71|T2IH71_CROWT|-----MQEL-AVRSELDFNSETYKDAYSRIN
tr|A3INE1|A3INE1_9CHRO|-----MQEL-ALRSELDNFSEYKDAYSRIN
tr|B1WR71|B1WR71_CYAA5|-----MQEL-ALRSELDNFSEYKDAYSRIN
tr|U5DFA3|U5DFA3_9CHRO|-----MQEL-AASTALDYSDVYKDAYSRIN
tr|L8N0G8|L8N0G8_9CYAN|-----MGQ----TLEAVAIDYQ TENYRDAYSRIN
tr|K9SPY2|K9SPY2_9CYAN|-----MIGQQ----LDIVTELDYNSDYRDAYSRIN
tr|K9SZC3|K9SZC3_9SYNE|-----MIGQIFAADFADENIDIDYRSDTYRDAYSRIN
tr|B4WJ48|B4WJ48_9SYNE|-----MQTL-EVSPAMDFQSEYKDAYSRIN
tr|U9WCI1|U9WCI1_9CYAN|-----MPQL-EASPTLDFQSEAYKDAYSRIN
tr|W5U411|W5U411_9CYAN|-----MPQL-EASLALDFQSEAYKDAYSRIN
tr|K9F0G4|K9F0G4_9CYAN|-----MPQL-EASPALDFQSEAYKDAYSRIN
tr|K9ULL9|K9ULL9_9CHRO|-----MVQM-AASLELNFTSEIYKDAYSRID
tr|K8GFP8|K8GFP8_9CYAN|-----MPQL-EASVAIDFRSEAYRDAYSRIN
tr|D4TEY2|D4TEY2_9NOST|-----MQQLVEQIEKTFQSAKYKDAYSRIN
tr|D4TRY1|D4TRY1_9NOST|-----MQQLVEQIEKTFQSAKYKDAYSRIN
tr|K9V615|K9V615_9CYAN|-----MQQL-EAELKIDFNSEIYKDAYSRIN
tr|K9PTP6|K9PTP6_9CYAN|-----MQQLTEQ--SEIDFQSEIYKDSYSRIN
tr|K7WTY7|K7WTY7_9NOST|-----MQQLVDQIEKIDFQSKIYKDAYSRIN
tr|K9WRL8|K9WRL8_9NOST|-----MQQLIADQVEKMDFQSEYKDAYSRIN
tr|K9ZJT3|K9ZJT3_ANACC|-----MQQLVEQIEKIDFQSEYKDAYSRIN
tr|D7E2W1|D7E2W1_NOSA0|-----MQQLVEEIEKIDFQSEYKDAYSRIN
tr|Q112R8|Q112R8_TRIEI|-----MPKLEIIPMTD--S-----QSETKLEKVKSQSEGDQINFETETYKDAYSRIN
sp|Q54764|ALDEC_SYNE7|-----MPQL-EASLELDFQSEYKDAYSRIN
tr|Q8KPT4|Q8KPT4_SYNE7|----M RTPWDPPNPTFLSS-----VSGDRRLMPQL-EASLELDFQSEYKDAYSRIN
tr|Q5N627|Q5N627_SYNP6|----M RTPWDPPNPTFLSS-----VSGDRRLMPQL-EASLELDFQSEYKDAYSRIN
tr|K9RFH5|K9RFH5_9CYAN|-----MQEL-ISPSELDRSEYKSAF SRIN
tr|K9TXF6|K9TXF6_9CYAN|-----MQQV-AATSEIDFHSEYKDAYSRIN
tr|K9X9I4|K9X9I4_9CHRO|-----MQQLAATAELDFHSEYKDAYSRIN
tr|A0Z9X5|A0Z9X5_NODSP|-----MQQL-AAELKIDFQSEYKDAYSRIN
tr|Q3MA38|Q3MA38_ANAVT|-----MQQV-AADLEIDFKSEYKDAYSRIN
```

1.....10.....20.....
: . *::: *::

tr	Q8YLL5	Q8YLL5_NOSS1	-----MQQV-AADLEIDFKSEYKDAYSRIN
tr	K9QXA2	K9QXA2_NOSS7	-----MQQI-AGDLEIDFKSEYKDAYSRIN
tr	M1X0T0	M1X0T0_9NOST	-----MTMQQL-ATQSEIDFSSEIYKDAYSRIN
tr	M1WVU9	M1WVU9_9NOST	-----MQQL-ATQSEIDFSSEIYKDAYSRIN
tr	K9S7C1	K9S7C1_9CYAN	-----MPQL-EASLELDFHSETYKDAYSRIN
tr	K9W4T2	K9W4T2_9CYAN	-----MAQ---IAASIDFQSETYKDAYSRIN
tr	G6FV22	G6FV22_9CYAN	-----MQQL-ADQPEIDFHSETYKDAYSRIN
tr	W5U379	W5U379_9CYAN	-----MYH-----IFRSGRTMQQL-ANQPDIDFKSETYKDAYSRIN
tr	W5U417	W5U417_9CYAN	-----MYH-----IFRSGRTMQQL-ANQPDIDFKSETYKDAYSRIN
tr	K9QA48	K9QA48_9NOSO	-----MQQL-AAELEIDFQSETYKDAYSRIN
tr	G9HTG5	G9HTG5_9NOSO	-----MQPL-AAELEIDFQSETYKDAYSRIN
tr	H2DDT7	H2DDT7_NOSS6	-----MQPL-AAELEIDFQSETYKDAYSRIN
tr	K9YV86	K9YV86_DACSA	-----MQD-VAVTPTLDYTSETYKDAYSRIN
tr	K9Y9U4	K9Y9U4_HALP7	-----MQD-VAVTPTLDYNSSETYKDAYSRIN
tr	W5U332	W5U332_PLAAG	-----MPQVEA--ITIDFQSETYKDAYSRIN
tr	F5UGX9	F5UGX9_9CYAN	-----MPQLEA-SPTIDFQTETYKDAYSRIN
tr	K9VE50	K9VE50_9CYAN	-----MPQLEA-SPTIDFQTETYKDAYSRIN
tr	D8FVZ2	D8FVZ2_9CYAN	-----MQQLEA-SPAIDFETATYKDAYSRIN
tr	B4VSW8	B4VSW8_9CYAN	-----M-----QTGENLLMQQLTV-SQELDFNSETYKDAYSRIN
tr	K9WII2	K9WII2_9CYAN	-----MQQLAV-SPEFDFTSSEYKDAYSRIN
tr	K9TGS5	K9TGS5_9CYAN	-----MPQLEATSATLDFQSPYKDAYSRIN
tr	B5W0S5	B5W0S5_ARTMA	-----MPQLETI-TELDFQNETYKDAYSRIN
tr	K1WZT6	K1WZT6_ARTPT	-----MPQLETI-TELDFQNETYKDAYSRIN
tr	W6SNU7	W6SNU7_9CYAN	-----MPQLETI-TELDFQNETYKDAYSRIN
tr	H1WAD2	H1WAD2_9CYAN	-----MPQLETI-TELDFQNETYKDAYSRIN
tr	K6DQI0	K6DQI0_ARTPT	-----MPQLETI-AELDFQNETYKDAYSRIN
tr	D5A1Z8	D5A1Z8_ARTPN	-----MPQLETI-AELDFQNETYKDAYSRIN
tr	U7QM55	U7QM55_9CYAN	-----MPQLEAI-AEIDFNTNTYKDAYSRIN
tr	A0YKK4	A0YKK4_LYNBP	-----MPQLEAI-AEIDFNTNTYKDAYSRIN
tr	A3Z6M0	A3Z6M0_9SYNE	-----MTQLDFASAAAYREAYSRIN
tr	B5ILL6	B5ILL6_9CHRO	-----MASVA---HPAVAVQPATKPADTAAERGDGLPDFSSDYKDAYSRIN
tr	A3YYU8	A3YYU8_9SYNE	-----MPSLETTIAASETASASASMAVGGSVQDLGLPDFSSDYKDAYSRIN
tr	A2C7S0	A2C7S0_PROM3	-----MPTLEMPV-----AAVLSTVGSSEALPDFTSDAYKDAYSRIN
sp	Q7V6D4	ALDEC_PROMM	-----MPTLEMPV-----AAVLSTVGSSEALPDFTSDAYKDAYSRIN
tr	A5GUD0	A5GUD0_SYNR3	-----MAS-----SLLDPAVDGTPVLDVELPDFTTEAYKSAYSRIN
tr	K9P3X5	K9P3X5_CYAGP	-----MPTVATT-----SVDSLSLDPVGP IEGSDLPDFSTAYKDAYSRIN
tr	Q0I8M9	Q0I8M9_SYNS3	-----MPTLDSTL-----VAVLDDQQGL-AELPDFTTDAYKDAYSRIN
tr	G4FIH8	G4FIH8_9SYNE	-----MSTLDSTA-----VAVLDDQQGL-AELPDFTTDAYKDAYSRIN
tr	Q05RJ5	Q05RJ5_9SYNE	-----MPTLNSPE-----VAALSDQDGSASQLPDFSSAYKDAYSRIN
tr	A5GJG5	A5GJG5_SYNPW	-----MPTPVTSE-----VAVLDDQAGSALPDFSSEAYKDAYSRIN
tr	A4CS34	A4CS34_SYNPV	-----MPTPVTSE-----VAVLDEQAGSALLPDFSSEAYKDAYSRIN
tr	A3Z5H6	A3Z5H6_9SYNE	-----MPTLETSE-----VAVLEDSMASGSRLLPDFTSEAYKDAYSRIN
tr	Q060S1	Q060S1_9SYNE	-----MLEG---QDALPDFTTAEYKDAYSRIN
tr	Q3AV61	Q3AV61_SYNS9	-----VSVLEG---QDALPDFTTAEYKDAYSRIN
tr	Q0QKQ4	Q0QKQ4_9SYNE	-----MTTLNAPE-----ASVMEG---QDALPDFTTAEYKDAYSRIN
tr	Q0QM11	Q0QM11_9SYNE	-----MTTLNAPD-----AAVVEG---LDALPDFTTAEYKDAYSRIN
tr	Q3ALN2	Q3ALN2_SYNSC	-----MTTLNAPE-----APVLEG---QDALPDFTTAEYKDAYSRIN
tr	W0GVR9	W0GVR9_9SYNE	-----MTTLNAPE-----APVLEG---QDALPDFTTAEYKDAYSRIN
tr	Q0QKF3	Q0QKF3_9SYNE	-----MTTLNAPE-----AAVVEG---LDALPDFTTAEYKDAYSRIN
tr	Q7U5G9	Q7U5G9_SYNPX	-----MTTLNAPE-----AAVVEG---LDALPDFTTAEYKDAYSRIN
tr	Q0QKK1	Q0QKK1_9SYNE	-----MTTLNAPE-----AAVVEG---LDALPDFTTAEYKDAYSRIN
tr	A2C0Z0	A2C0Z0_PROM1	-----MQAFASNN-----LT--VEKEELSSDSLPDFTSEYKDAYSRIN
tr	Q46GP5	Q46GP5_PROMT	-----MQAFASNN-----LT--VEKEELSSDSLPDFTSEYKDAYSRIN
tr	A8G3P7	A8G3P7_PROM2	-----MNKSLTDMQTLESK-----DIQLEGSTDNDSANLPDFTTDAYKDAYSRIN
tr	A2BVJ4	A2BVJ4_PROM5	-----MQTLESNK-----NIQIGSSPESDSANLPDFTTDAYKDAYSRIN
tr	Q7V2E8	Q7V2E8_PROMP	-----MQTLESNK-----KT-N---LENSIDLPDFTTDSYKDAYSRIN
tr	Q31C02	Q31C02_PROM9	MH--NELKITDMQTLETNT-----KT-TEESIDTNSLNLPDFTTDSYKDAYSRIN
tr	A2BQ13	A2BQ13_PROMS	MH--NELKITDMQTLESNK-----KT-IEESINPISLDLPDFTTDSYKDAYSRIN
tr	A3PBQ6	A3PBQ6_PROM0	MH--NELKITDMQTLESNK-----KT-IEESTNSISLDLPDFTTDSYKDAYSRIN
tr	A9BEF6	A9BEF6_PROM4	-----MPTLESSE-----VA-VISDLEGRDGLSLPDFTTEQYKDAYSRIN
tr	Q7VD51	Q7VD51_PROMA	-----MQTLTN-----QVASADELDNLPDFSSSQYKDAYSRIN
tr	B8HLW2	B8HLW2_CYAP4	-----MSDCATNPALDYSETYRDAYRRV
tr	U9VZT6	U9VZT6_9CYAN	-----MSHSVADQTLDFYSDTYRDAFTRIN
tr	K9EQR0	K9EQR0_9CYAN	-----MPYSAVDQTLDFHSDTYRDAFTRIN

..30.....40.....50.....60.....70.....80.....
.:*: ** * .: : : : : * . ** * * . * . * . * . * .

sp	B2J1M1	ALDEC_NOSP7	AIVIEGEQEAHENYITLAQLLPESHDELIRLSKMESRHKKGFACGRNLAVTPDLQFAKE
tr	U5QDK0	U5QDK0_9CYAN	AIVLEGEREACANYLALAEALLPHADALKKLSAMENRHFKGFQSCARNLEVTDPDEFARR
tr	Q7NGM3	Q7NGM3_GLOVI	AIVLEGEREAHANYLTLAEMLPDHAELKLAAMENRHFKGFQSCARNLEVTDPDEFARR
tr	Q2JJ13	Q2JJ13_SYNJB	GIVIEGEQEAHADNYLKLAEMLPEGAEEHLKLAEMELRHMKGQSCGKNLQVEPDRFART
tr	Q2JX62	Q2JX62_SYNJA	GIVIEGEQEAHADNYLKLAEMLPEAAEELRKLAKMELRHMKGQSCGKNLQVEPDRFART
tr	K9RTZ6	K9RTZ6_SYN3	GIVIEGEQEAHENYISLTKLIPDYEEEDLRLSKMEARHKKGFACGRNLAVSPDLDFAEK
tr	Q8DJB4	Q8DJB4_THEEB	AIVIEGEQEADNYIDLAKLLPQHQEELTRLAKMEARHKKGFACGRNLVTPDMEFAKA
tr	V5V382	V5V382_9CHRO	AIVIEGEQKACDNYIDLAKLLPQHQEELTRLAKMEARHKKGFACGRNLVTPDMEFAKA
tr	B0C9L0	B0C9L0_ACAM1	GIVIEGEQEAHENYIRLGEMLPDQDDFIRLSKMEARHKKGFACGRNLKVTCDLDFARR
tr	B8HSZ3	B8HSZ3_CYAP4	AIVIEGEQEADNYLKLTELLPDCQEDLVRLLAKMEARHKKGFACGRNLKVTCDLDFARR
tr	L8LLH3	L8LLH3_9CHRO	AIVIEGEHEAYQNYITLGDMLPDVQAEELVRLAKMESRHAKGFQSCGKNLQVTPDMEYAKK
tr	K9Z5G1	K9Z5G1_CYAAP	AIVIEGEQEADNYMDMIPMLPNHEKELASLAKMEFRHKKGFQSCGGRNLVTPDMEYAKK
tr	I4FNH9	I4FNH9_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4I7T6	I4I7T6_9CHRO	AIVIEGEYEANSNYIQLADILADNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4HKI6	I4HKI6_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	B0JY93	B0JY93_MICAN	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4GYG9	I4GYG9_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4IM50	I4IM50_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4FD05	I4FD05_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	L7E3D3	L7E3D3_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	L8NP18	L8NP18_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	A8YJ06	A8YJ06_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	S3JGS6	S3JGS6_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4GKL8	I4GKL8_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4HLI6	I4HLI6_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4FY74	I4FY74_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	I4H417	I4H417_MICAE	AIVIEGEYEANSNYIQLADILTDNKEELHRLAKMENRHMKGQACGRNLQITPDMYARA
tr	M1LIQ1	M1LIQ1_9SYNC	AIVIEGEQEAYSNYLQMAELLPEDEELTRLAKMENRHMKGQACGRNLQVNPDMPYAQE
tr	H0NYN3	H0NYN3_9SYNC	AIVIEGEQEAYSNYLQMAELLPEDEELTRLAKMENRHMKGQACGRNLQVNPDMPYAQE
tr	H0PB35	H0PB35_9SYNC	AIVIEGEQEAYSNYLQMAELLPEDEELTRLAKMENRHMKGQACGRNLQVNPDMPYAQE
tr	H0PG18	H0PG18_9SYNC	AIVIEGEQEAYSNYLQMAELLPEDEELTRLAKMENRHMKGQACGRNLQVNPDMPYAQE
tr	F7US88	F7US88_SYNYG	AIVIEGEQEAYSNYLQMAELLPEDEELTRLAKMENRHMKGQACGRNLQVNPDMPYAQE
sp	Q55688	ALDEC_SYNY3	AIVIEGEQEAYSNYLQMAELLPEDEELTRLAKMENRHMKGQACGRNLQVNPDMPYAQE
tr	D3EPA5	D3EPA5_ATETH	AIVIEGEQEAYQNYLDMVHMLPKNKDELVRLSKMENRHKGTGFACGKNLQVTPDMQYAKE
tr	B7JUH1	B7JUH1_CYAP8	AIVIEGEQEAHQNYIDMAQLLPEHQEELIRLSKMEARHKKGFACGNNLSVTPDMQYAKE
tr	C7QUV0	C7QUV0_CYAP0	AIVIEGEQEAHQNYIDMAQLLPEHQEELIRLSKMEARHKKGFACGNNLSVTPDMQYAKE
tr	G5J0P0	G5J0P0_CROWT	AIVIEGEQEAYENYIDMGELLPDGKDELIRLSKMEARHKKGFACGKNLQVTPDMQYAKE
tr	T2JF13	T2JF13_CROWT	AIVIEGEQEAYENYIDMGELLPDGKDELIRLSKMEARHKKGFACGKNLQVTPDMQYAKE
tr	Q4C7T3	Q4C7T3_CROWT	AIVIEGEQEAYENYIDMGELLPDGKDELIRLSKMEARHKKGFACGKNLQVTPDMQYAKE
tr	T2IH71	T2IH71_CROWT	AIVIEGEQEAYENYIDMGELLPDGKDELIRLSKMEARHKKGFACGKNLQVTPDMQYAKE
tr	A3INE1	A3INE1_9CHRO	AIVIEGEQEAYQNYLDMVHMLPKNKDELVRLSKMENRHKGTGFACGKNLQVTPDMQYAKE
tr	B1WR71	B1WR71_CYAA5	AIVIEGEQEAYQNYLDMVHMLPKNKDELVRLSKMENRHKGTGFACGKNLQVTPDMQYAKE
tr	U5DFA3	U5DFA3_9CHRO	AIVIEGEMEAKGNYTQLAETLLPDSAEEDLTLAKMEGRHMKGFACGKNLSVTPDMDFARD
tr	L8N0G8	L8N0G8_9CYAN	AIVIEGEAEASNYLQLAELMPEFNEELHRLAKMEDRHHKGFACGKNLQVTPDMDFARD
tr	K9SPY2	K9SPY2_9CYAN	AIVIEGEQEAYSNYLRLGEMLPDLKDDLAKLAKMEARHKKGFACGKNLQVTPDMQFAQE
tr	K9SZC3	K9SZC3_9SYNE	AIVIEGEQEADNYLQGLGELLPELKTETAGLAKMENRHMKGFEACGRNLVTPDMQFAQE
tr	B4WJ48	B4WJ48_9SYNE	AIVIEGELEANNKYQLSEHLGDFKDDLKLAEMENRHMKGQACGKNLQVTPDMQFAQE
tr	U9WC11	U9WC11_9CYAN	AIVIEGELEANNKYQLSEHLGDFKDDLKLAEMENRHMKGQACGKNLQVTPDMQFAQE
tr	W5U411	W5U411_9CYAN	AIVIEGEWEANDNYQTLAEHLSHDKDELIKLARMKRHMKGQACGKNLQVTPDMQFAQE
tr	K9F0G4	K9F0G4_9CYAN	AIVIEGEWEANDNYQTLAEHLSHDKDELIKLARMKRHMKGQACGKNLQVTPDMQFAQE
tr	K9ULL9	K9ULL9_9CHRO	AIVIEGEQEAHENYITLSGELLPPDQDDLKLSKMEARHKKGFACARNLAVTPDLGFAKE
tr	K8GFP8	K8GFP8_9CYAN	AIVIEGEQEANENYVLAELLPDSKDELGLAKMESRHKKGFACGGRNLVTPDMDFARE
tr	D4TEY2	D4TEY2_9NOST	AIVIEGEQEAHENYITLGLLELPPNKEELIKLSKMESRHKKGFACGRNLVTPDMDFARE
tr	D4TRY1	D4TRY1_9NOST	AIVIEGEQEAHENYITLGLLELPPNKEELIKLSKMESRHKKGFACGRNLVTPDMDFARE
tr	K9V615	K9V615_9CYAN	AIVIEGEQEAHENYISLGLLELPPNKEELIKLSKMESRHKKGFACGRNLVTPDMDFARE
tr	K9PTP6	K9PTP6_9CYAN	AIVIEGEQEAYDNYIKLAEMLPEQAEELIRLSKMEARHKKGFACGGRNLQVTPDMEFAKA
tr	K7WTY7	K7WTY7_9NOST	AIVIEGEQEAHENYMTLAKLLPAQEELIRLSKMEARHKKGFACGGRNLQVTPDMEFAKA
tr	K9WRL8	K9WRL8_9NOST	AIVIEGEQEADNYIKLAEMLPEQAEELIRLSKMEARHKKGFACGGRNLQVTPDMEFAKA
tr	K9ZJT3	K9ZJT3_ANACC	AIVIEGEQEADNYIKLAEMLPEQAEELIRLSKMEARHKKGFACGGRNLQVTPDMEFAKA
tr	D7E2W1	D7E2W1_NOSA0	AIVIEGEQEAHENYITLAKLLPESEKELMLRSLKMEARHKKGFACGGRNLQVTPDMEFAKA
tr	Q112R8	Q112R8_TRIEI	AIVIEGEQEAYKNYIKLAEMLPEQAEELIKLSKMEARHKKGFACGGRNLQVTPDMEFAKA
sp	Q54764	ALDEC_SYNE7	AIVIEGEQEAFDNYNRLAEMLPDQRDELHKLAKMEQRHMKGFMACGKNLSVTPDMGFAQK
tr	Q8KPT4	Q8KPT4_SYNE7	AIVIEGEQEAFDNYNRLAEMLPDQRDELHKLAKMEQRHMKGFMACGKNLSVTPDMGFAQK
tr	Q5N627	Q5N627_SYN6	AIVIEGEQEAFDNYNRLAEMLPDQRDELHKLAKMEQRHMKGFMACGKNLSVTPDMGFAQK
tr	K9RFH5	K9RFH5_9CYAN	AIVIEGEQEAYENYISLGLLQLLPDKDDLVRSLKMEMRHMKGQACARNLEVTADMEFAKE
tr	K9TXF6	K9TXF6_9CYAN	AIVIEGEQEAYENYISLGLLQLLPDKDDLVRSLKMEMRHMKGQACARNLEVTADMEFAKE
tr	K9X9I4	K9X9I4_9CHRO	AIVIEGEQEAHENYIRLAELLPDQDELIRLSKMEARHKKGFACGGRNLQVTPDMQFAQE
tr	A0Z9X5	A0Z9X5_NODSP	AIVIEGEQEADNYITLAEMLPELKDDELIRLSKMEARHKKGFACGGRNLQVTPDMQFAQE
tr	Q3MA38	Q3MA38_ANAVT	AIVIEGEQEAYENYISLGLLQLLPDKDDLVRSLKMEMRHMKGQACARNLEVTADMEFAKE

```

..30.....40.....50.....60.....70.....80.....
.:*: ** * .: : : : * . ** * * . * . * . * . * .
tr|Q8YLL5|Q8YLL5_NOSS1|AIVIEGEQEAYENYIQLSOLLPDDKEDLIRLSKMESRHHKGFQEACGRNLQVSPDMEFAKE
tr|K9QXA2|K9QXA2_NOSS7|AIVIEGEQEAYDNYIQLAEMLPHEHKDELIRLSKSMENRHHKGFQEACGRNLEVPDPMQFAKE
tr|M1X0T0|M1X0T0_NOSS1|AIVIEGEQEAEHENYITLAEMLPENEQLIRLSQMESRHHKGFQEACGRNLQVAPDMKFAK
tr|M1WVU9|M1WVU9_NOSS1|AIVIEGEQEAEHENYITLAEMLPENEQLIRLSQMESRHHKGFQEACGRNLQVAPDIKFAKN
tr|K9S7C1|K9S7C1_9CYAN|AIVIEGEQEAYENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLEVT
tr|K9W4T2|K9W4T2_9CYAN|AIVIEGEQEAYENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLEVT
tr|G6FV22|G6FV22_9CYAN|AIVIEGEQEAEHENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLQVTPDI
tr|W5U379|W5U379_9CYAN|AIVIEGEQEAEHENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLQVTPDLEFAKQ
tr|W5U417|W5U417_9CYAN|AIVIEGEQEAEHENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLQVTPDLEFAKQ
tr|K9QA48|K9QA48_9NOSO|AIVIEGEQEAYENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLKVT
tr|G9HTG5|G9HTG5_9NOSO|AIVIEGEQEAYENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLKVT
tr|H2DDT7|H2DDT7_NOSS6|AIVIEGEQEAYENYIQLAEMLPDNDQDELVRLSKMESRHHKGFQEACGRNLKVT
tr|K9YV86|K9YV86_DACSA|AIVIEGEQEAKDNYLHLIQLLPDQDELIRLSKMEARHHKGFQEACGRNLSVT
tr|K9Y9U4|K9Y9U4_HALP7|AIVIEGEQEAKDNYLHLIELLPDQDELIRLSKMEARHHKGFQEACGRNLSVT
tr|W5U332|W5U332_PLAAG|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|F5UGX9|F5UGX9_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K9VE50|K9VE50_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|D8FVZ2|D8FVZ2_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|B4VSW8|B4VSW8_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K9WII2|K9WII2_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K9TGS5|K9TGS5_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|B5W0S5|B5W0S5_ARTMA|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K1WZT6|K1WZT6_ARTPT|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|W6SNU7|W6SNU7_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|H1WAD2|H1WAD2_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K6DQI0|K6DQI0_ARTPT|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|D5A1Z8|D5A1Z8_ARTPN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|U7QM55|U7QM55_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A0YKK4|A0YKK4_LYNBP|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A3Z6M0|A3Z6M0_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|B5ILL6|B5ILL6_9CHRO|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A3YYU8|A3YYU8_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A2C7S0|A2C7S0_PROM3|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
sp|Q7V6D4|ALDEC_PROMM|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A5GUD0|A5GUD0_SYNR3|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K9P3X5|K9P3X5_CYAGP|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q0I8M9|Q0I8M9_SYNS3|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|G4FIH8|G4FIH8_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q05RJ5|Q05RJ5_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A5GJG5|A5GJG5_SYNPW|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A4CS34|A4CS34_SYNPV|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A3Z5H6|A3Z5H6_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q060S1|Q060S1_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q3AV61|Q3AV61_SYNS9|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q0QKQ4|Q0QKQ4_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q0QM11|Q0QM11_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q3ALN2|Q3ALN2_SYNSC|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|W0GVR9|W0GVR9_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q0QKF3|Q0QKF3_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q7U5G9|Q7U5G9_SYNPX|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q0QKK1|Q0QKK1_9SYNE|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A2C0Z0|A2C0Z0_PROM1|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q46GP5|Q46GP5_PROMT|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A8G3P7|A8G3P7_PROM2|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A2BVJ4|A2BVJ4_PROM5|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q7V2E8|Q7V2E8_PROMP|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q31C02|Q31C02_PROM9|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A2BQ13|A2BQ13_PROMS|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A3PBQ6|A3PBQ6_PROM0|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|A9BEF6|A9BEF6_PROM4|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|Q7VD51|Q7VD51_PROMA|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|B8HLW2|B8HLW2_CYAP4|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|U9VZT6|U9VZT6_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD
tr|K9EQR0|K9EQR0_9CYAN|AIVIEGEQEAYDNYIQLAEMLPDNDQDELIRLSKMEMSHKRGFQEACGRNLVTPDMEFAQD

```



```

..90.....100 .....110.....120.....130.....140....
* * * * * * * * * * * * * * * * * * * * * * * * * * * *
tr|Q8YLL5|Q8YLL5_NOSS1|FFAGLHGNFQKAAA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9QXA2|K9QXA2_NOSS7|FFAELHSNFTAAA--EGKVVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|M1X0T0|M1X0T0_NOSS7|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|M1WVU9|M1WVU9_NOSS7|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9S7C1|K9S7C1_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9W4T2|K9W4T2_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|G6FV22|G6FV22_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|W5U379|W5U379_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|W5U417|W5U417_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9QA48|K9QA48_9NOSO|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|G9HTG5|G9HTG5_9NOSO|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|H2DDT7|H2DDT7_NOSS6|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9YV86|K9YV86_DACSA|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9Y9U4|K9Y9U4_HALP7|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|W5U332|W5U332_PLAAG|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|F5UGX9|F5UGX9_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9VE50|K9VE50_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|D8FVZ2|D8FVZ2_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|B4VSW8|B4VSW8_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9WII2|K9WII2_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9TGS5|K9TGS5_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|B5W0S5|B5W0S5_ARTMA|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K1WZT6|K1WZT6_ARTPT|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|W6SNU7|W6SNU7_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|H1WAD2|H1WAD2_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K6DQI0|K6DQI0_ARTPT|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|D5A1Z8|D5A1Z8_ARTPN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|U7QM55|U7QM55_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A0YKK4|A0YKK4_LYNBP|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A3Z6M0|A3Z6M0_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|B5ILL6|B5ILL6_9CHRO|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A3YYU8|A3YYU8_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A2C7S0|A2C7S0_PROM3|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
sp|Q7V6D4|ALDEC_PROMM|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A5GUD0|A5GUD0_SYNR3|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9P3X5|K9P3X5_CYAGP|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q0I8M9|Q0I8M9_SYNS3|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|G4FIH8|G4FIH8_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q05RJ5|Q05RJ5_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A5GJG5|A5GJG5_SYNPW|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A4CS34|A4CS34_SYNPV|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A3Z5H6|A3Z5H6_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q060S1|Q060S1_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q3AV61|Q3AV61_SYNS9|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q0QKQ4|Q0QKQ4_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q0QM11|Q0QM11_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q3ALN2|Q3ALN2_SYNSC|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|W0GVR9|W0GVR9_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q0QKF3|Q0QKF3_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q7U5G9|Q7U5G9_SYNPX|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q0QKK1|Q0QKK1_9SYNE|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A2C0Z0|A2C0Z0_PROM1|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q46GP5|Q46GP5_PROMT|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A8G3P7|A8G3P7_PROM2|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A2BVJ4|A2BVJ4_PROM5|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q7V2E8|Q7V2E8_PROMP|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q31C02|Q31C02_PROM9|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A2BQ13|A2BQ13_PROMS|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A3PBQ6|A3PBQ6_PROM0|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|A9BEF6|A9BEF6_PROM4|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|Q7VD51|Q7VD51_PROMA|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|B8HLW2|B8HLW2_CYAP4|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|U9VZT6|U9VZT6_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD
tr|K9EQR0|K9EQR0_9CYAN|FFADLHNFHTASA--EGKIVTCLLIQSLIIECFAIAYNIYIPVADDFARKITEGVVKD

```

```

...150.....160.....170.....180.....190.....200....
* * .: : ** : : . : * : * : : * : *
sp|B2J1M1|ALDEC_NOSP7|EYSHLNFGEVWLKEHFAESKAELELANRQNLPIVWKMLNQVEGDAHTMAMEKDALVEDDFM
tr|U5QDK0|U5QDK0_9CYAN|EYTHLNFGEVWLKDFHFEAVRPGIEQANAQNLPIVWRMLNQEVEDDAATLQMDKEAIVEDFL
tr|Q7NGM3|Q7NGM3_GLOVI|EYTHLNFGEVWLKERFVTVREGIERANAQNLPIVWRMLNAVEADTEVLQMDKEAIVEDDFM
tr|Q2JJ13|Q2JJ13_SYNJB|EYLHLNFGERWLGHEHFGEVKGQIEAANAQNLPLVWQMLQQVDQDVEAIYMDREAIVEDDFM
tr|Q2JX62|Q2JX62_SYNJA|EYLHLNFGERWLGHEHFAEVKAQIEAANAQNLPLVRQMLQQVEADVEAIYMDREAIVEDDFM
tr|K9RTZ6|K9RTZ6_SYNPK|EYSHLNFGEVWLQENFEAVKAEVETANKDNLPIVWRMLNEVEKDAKVLGMDKDALVEDDFM
tr|Q8DJB4|Q8DJB4_THEEB|EYSHLNFGEIWLKEHFESVKGELEEAANRANLPIVWKMLNQVEADAKVLGMEKDALVEDDFM
tr|V5V382|V5V382_9CHRO|EYSHLNFGEIWLKENFESVKAEELEEAANRANLPIVWKMLNQVEADAKVLGMEKDALVEDDFM
tr|B0C9L0|B0C9L0_ACAM1|EYQHLNNGEEWLKAHFDDVKAIEIQEANRKNLPIVWRMLNEVDKDAAVLGMKEKALVEDDFM
tr|B8HSZ3|B8HSZ3_CYAP4|EYTHLNFGEEWLKANFDSQREEVEAANRENLPIVWRMLNQVETDAHVLMGMEKALVESFM
tr|L8LLH3|L8LLH3_9CHRO|EYTHLNFGEEWLKNFASAKAELEEAANRENLPIVWQMLNVEVAEDAAI LAMEKDALVEDDFM
tr|K9Z5G1|K9Z5G1_CYAAP|EYLHLNFGEEWLKANFEASKAELEEAANRQNLPIVWRMLNEVEKDAKTLGMPKEELIEDDFM
tr|I4FNH9|I4FNH9_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLGMEKALVEDDFM
tr|I4I7T6|I4I7T6_9CHRO|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLGMEKALVEDDFM
tr|I4HKI6|I4HKI6_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLGMEKALVEDDFM
tr|B0JY93|B0JY93_MICAN|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLGMEKALVEDDFM
tr|I4GYG9|I4GYG9_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLGMEKALVEDDFM
tr|I4IM50|I4IM50_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|I4FD05|I4FD05_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLGMEKALVEDDFM
tr|L7E3D3|L7E3D3_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|L8NP18|L8NP18_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|A8YJD6|A8YJD6_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|S3JGS6|S3JGS6_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWKMLNQVEDDARVLAMEKEALVEDDFM
tr|I4GKL8|I4GKL8_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|I4HLI6|I4HLI6_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|I4FY74|I4FY74_MICAE|EYLHLNFGEEWLKANFETAKKELEEAANRANLPIVWKMLNQVEDDARVLAMEKEALVEDDFM
tr|I4H417|I4H417_MICAE|EYLHLNFGEEWLKANFETAKDELEEAANRANLPIVWRMLNQVEDDARVLAMEKEALVEDDFM
tr|M1LIQ1|M1LIQ1_9SYNC|EYTHLNYGEEWLKANFATAKEELEQANKENLPLVWKMLNQVQGDAAKVLGMEKALVEDDFM
tr|H0NYN3|H0NYN3_9SYNC|EYTHLNYGEEWLKANFATAKEELEQANKENLPLVWKMLNQVQGDAAKVLGMEKALVEDDFM
tr|H0PB35|H0PB35_9SYNC|EYTHLNYGEEWLKANFATAKEELEQANKENLPLVWKMLNQVQGDAAKVLGMEKALVEDDFM
tr|H0PG18|H0PG18_9SYNC|EYTHLNYGEEWLKANFATAKEELEQANKENLPLVWKMLNQVQGDAAKVLGMEKALVEDDFM
tr|F7US88|F7US88_SYNYG|EYTHLNYGEEWLKANFATAKEELEQANKENLPLVWKMLNQVQGDAAKVLGMEKALVEDDFM
sp|Q55688|ALDEC_SYNY3|EYTHLNYGEEWLKANFATAKEELEQANKENLPLVWKMLNQVQGDAAKVLGMEKALVEDDFM
tr|D3EPA5|D3EPA5_ATETH|EYKHLNFGEVWLGDFENFESSKIELEEAANKTNLPIVWKMLNEVEQDASILGMEKALVEDDFM
tr|B7JUH1|B7JUH1_CYAP8|EYTHLNFGEVWLQEHFEESKAELEEAANKANLPIVWEMLNQVEGDAKVLGMEKALVEDDFM
tr|C7QUV0|C7QUV0_CYAP0|EYTHLNFGEVWLQEHFEESKAELEEAANKANLPIVWEMLNQVEGDAKVLGMEKALVEDDFM
tr|G5J0P0|G5J0P0_CROWT|EYSHLNFGEVWLKENFEASKAELEQANKENLPIVWQMLNEVEDDAEILGMEKALVEDDFM
tr|T2JF13|T2JF13_CROWT|EYSHLNFGEVWLKENFEASKAELEQANKENLPIVWQMLNEVEDDAEILGMEKALVEDDFM
tr|Q4C7T3|Q4C7T3_CROWT|EYSHLNFGEVWLKENFEASKAELEQANKENLPIVWQMLNEVEDDAEILGMEKALVEDDFM
tr|T2IH71|T2IH71_CROWT|EYSHLNFGEVWLKENFEASKAELEQANKENLPIVWQMLNEVEDDAEILGMEKALVEDDFM
tr|A3INE1|A3INE1_9CHRO|EYTHLNFGEIWLKEHFESAKAELEEAANKKNLPIVWQMLNQVEKDAEVLGMEKALVEDDFM
tr|B1WR71|B1WR71_CYAA5|EYTHLNFGEVWLKEHFESAKAELEEDANKENLPLVWQMLNQVEKDAEVLGMEKALVEDDFM
tr|U5DFA3|U5DFA3_9CHRO|EYLHLNFGEVWLREHFDVKERLEEANKQNLPIVWQMLNQVEDDAAVLGMKEKEELIEDDFM
tr|L8N0G8|L8N0G8_9CYAN|EYLHLNFGEEWLQDHFENSRAITLQANRQNLPLVWKMLNQVEDDAKVLGMEKALVEDDFM
tr|K9SPY2|K9SPY2_9CYAN|EYLHLNFGEEWLKANFDSAKAELEEAANRQNLPLVWKMLNRVEKDAKVLGMEKALVEDDFM
tr|K9SZC3|K9SZC3_9SYNE|EYLHLNFGEVWLQENFETAKNQLEIANRQNLPLVWKMLNQVAKDAKVLGMEKDALVEDDFM
tr|B4WJ48|B4WJ48_9SYNE|EYMHNLNFGEEWLKANFEASKAELEETANRANLPLIWKMLNQVEEDAAVLGMKEKDALIEDDFM
tr|U9WC11|U9WC11_9CYAN|EYMHNLNFGEEWLKANFETAKAELEEAANRQNLPLVWQMLNEVADDAAVLGMKEKALVEDDFM
tr|W5U411|W5U411_9CYAN|EYMHNLNFGEEWLKANFDSAKAELEEAANRQNLPLVWQMLNQVADDAAILGMEKDALVEDDFM
tr|K9F0G4|K9F0G4_9CYAN|EYMHNLNFGEEWLKANFDSAKKELEEAANRQNLPLVWQMLNQVADDAAILGMEKDALVEDDFM
tr|K9ULL9|K9ULL9_9CHRO|EYMHNLNFGEVWLHDFEASKAELEQTANRQNLPLVWKMLNNVAKDAKVLGMEKDALVEDDFM
tr|K8GFP8|K8GFP8_9CYAN|EYSHLNFGEVWLKANFEQSKAELEEAANRENLPLVWQMLNQVEEDARVLGMEKDALVEDDFM
tr|D4TEY2|D4TEY2_9NOST|EYTHLNFGEVWLKKEHFEASKAELEEVANRENLPIVWQMLNQVAEDAKVLGMEKDALVEDDFM
tr|D4TRY1|D4TRY1_9NOST|EYTHLNFGEVWLKKEHFEASKAELEEVANRENLPIVWQMLNQVAEDAKVLGMEKDALVEDDFM
tr|K9V615|K9V615_9CYAN|EYMHNLNFGEVWLQANFETAKAELEEAANRQNLPLVWQMLNQVADDAEVLAMEKDALVEDDFM
tr|K9PTP6|K9PTP6_9CYAN|EYSHLKFGEVWLQEHFTEAKAELEEAANRQNLPIVWKMLNQVADDAKILAMEKDALVEDDFM
tr|K7WTY7|K7WTY7_9NOST|EYSHLNFGEVWLQENFTESQAELEEAANRQNLPIVWKMLNEVADDAKVLAMEKDALVEDDFM
tr|K9WRL8|K9WRL8_9NOST|EYSHLNFGEVWLQENFAESKAELEEAANRHNLPIVWKMLNQVADDAQVLAMEKEALVEDDFM
tr|K9ZJT3|K9ZJT3_ANACC|EYSHLNFGEVWLQENFAESKAELEETANRQNLPLVWKMLNQVADDAHVLMAMEKEALVEDDFM
tr|D7E2W1|D7E2W1_NOSA0|EYSHLNFGEVWLKEHFAESKAELEEDDANRQNLPIVWQMLNQVADDAARVLAMEKEALVEDDFM
tr|Q112R8|Q112R8_TRIEI|EYSHLNFGEVWLKEYFEDSKQELQKANRQNLPLVWKMLNQVEKDAKTLMEKEALIEDDFM
sp|Q54764|ALDEC_SYNE7|EYLHRNFGEEWLKANFDASKAELEEAANRQNLPLVWMLNEVADDAARELGMERESLVEDDFM
tr|Q8KPT4|Q8KPT4_SYNE7|EYLHRNFGEEWLKANFDASKAELEEAANRQNLPLVWMLNEVADDAARELGMERESLVEDDFM
tr|Q5N627|Q5N627_SYNPK|EYLHRNFGEEWLKANFDASKAELEEAANRQNLPLVWMLNEVADDAARELGMERESLVEDDFM
tr|K9RFH5|K9RFH5_9CYAN|EYTHLNFGEVWLKKEHFEESKAELEEAANAQNLPIVWKMLNEVE TDAEVMAMPKDALVEDDFM
tr|K9TXF6|K9TXF6_9CYAN|EYTHLNFGEVWLKDNFEQSKAELEEAANRQNLPIVWQMLNKVEDDARVLGMEKDALVEDDFM
tr|K9X9I4|K9X9I4_9CHRO|EYSHLNFGEVWLKEHFAESKAELEEAANRQNLPIVWQMLNAVENDAHTLAMEKEALVEDDFM
tr|A0Z9X5|A0Z9X5_NODSP|EYSHLNFGEVWLKENFAESKAELEEAANRQNLPIVWKMLNEVENDAHVLMAMEKEALVEDDFM
tr|Q3MA38|Q3MA38_ANAVT|EYSHLNFGEVWLQKNFAESKAELEEAANRHNLPIVWKMLNQVADDAAVLAMEKEALVEDDFM

```

```

...150.....160.....170.....180.....190.....200....
* * .: : ** : : . : * : * : : * : *
tr | Q8YLL5 | Q8YLL5_NOSS1 | EYSHLNFGEVWLQKNFAQSKAELEAANRHNLP IVWKMLNQVADDAAVLAMEKEALVEDFM
tr | K9QXA2 | K9QXA2_NOSS7 | EYSHLNFGEVWLKEHFAESKAELEAANRQNLPIVWRMLNQVEADAAILAMEKEALVEDFM
tr | M1X0T0 | M1X0T0_9NOST | EYTHLNFGEVWLKENFEDSKAELEAANRQNLPIVWKMLSSVEEDA AVLAMDKALVEDFM
tr | M1WVU9 | M1WVU9_9NOST | EYTHLNFGEVWLKENFEDSKAELEAANRQNLPIVWKMLSSVEEDA AVLAMDKALVEDFM
tr | K9S7C1 | K9S7C1_9CYAN | EYSHLNFGEVWLKANFEASKAELEAANRQNLPIVWRMLNQVEQDAKT LAMEKDALVEDFM
tr | K9W4T2 | K9W4T2_9CYAN | EYTHLNFGEVWLKEHFEESKAELETANRQNLPIVWQMLNQVAKDAGVLAMEKDALVEDFM
tr | G6FV22 | G6FV22_9CYAN | EYSHLNFGEVWLKEHFEESKAELEAANRQNLPIVWQMLNQVADDAEVLAMEKEALVEDFM
tr | W5U379 | W5U379_9CYAN | EYSHLNFGEVWLKEHFEESKAELEAANRQNLPIVWQMLNQVADDAEVLAMEKEALVEDFM
tr | W5U417 | W5U417_9CYAN | EYSHLNFGEVWLKEHFEESKAELEAANRQNLPIVWQMLNQVADDAEVLAMEKEALVEDFM
tr | K9QA48 | K9QA48_9NOSO | EYSHLNFGEVWLQNF EASKIELEAANRQNLPIVWKMLNQVADDAVLGMEKDALVEDFM
tr | G9HTG5 | G9HTG5_9NOSO | EYSHLNFGEVWLKANFEASKAELEAANRQNLPIVWKMLNQVAADA EVLAMEKEALVEDFM
tr | H2DDT7 | H2DDT7_NOSS6 | EYSHLNFGEVWLKANFEASKAELEAANRQNLPIVWKMLNQVAADA EVLAMEKEALVEDFM
tr | K9YV86 | K9YV86_DACSA | EYTHLNYGEEWLKAHFDEVKDELEVANRQNLPIIWKMLNQVAADAK I LGMEKDALVEDFM
tr | K9Y9U4 | K9Y9U4_HALP7 | EYTHLNYGEEWLKANFDSAKEELEAANRQNLPIVWKMLNQVAADAN VLGMEKDALVEDFM
tr | W5U322 | W5U322_PLAAG | EYMLHNFGEVWLKANFEASKTELETANRQNLPIIWRMLNQVADDAH I LGMEKDALVEDFM
tr | F5UGX9 | F5UGX9_9CYAN | EYSHLNFGEVWLQAHFEESKAELEAANRQNLPIIWKLLNAVADDA RVLGMEKDALIEDFM
tr | K9VE50 | K9VE50_9CYAN | EYSHLNFGEVWLQAHFEESKAELEAANRQNLPIIWKLLNAVADDA RVLGMEKDALIEDFM
tr | D8FVZ2 | D8FVZ2_9CYAN | EYHHLNFGEVWLKAHFEE SKAEVDTANRQNLPIVWRMLNQVEDD ARVLGMEKDALVEDFM
tr | B4VSW8 | B4VSW8_9CYAN | EYMLHNFGEVWLKANFEASKTELEQANKQNLPIVWRMLNQVEKDAH I LGMEKDALVEDFM
tr | K9WII2 | K9WII2_9CYAN | EYMLHNFGEVWLKDHFEESKAELEQANRQNLPIVWRMLNQVEDDAH I LGMEKDALVEDFM
tr | K9TGS5 | K9TGS5_9CYAN | EYSHLNFGEVWLQAHFAESKTELEQANRQNLPIVWKMLNQVTDDAK VLEMEKEALVEDFM
tr | B5W0S5 | B5W0S5_ARTMA | EYHHLNFGEVWLKAHFEE SKAELEAANRQNLPLVWKMLNQVEKDA S I LGMEKEALIEDFM
tr | K1WZT6 | K1WZT6_ARTPT | EYHHLNFGEVWLKAHFEE SKAELEAANRQNLPLVWKMLNQVEKDA S I LGMEKEALIEDFM
tr | W6SNU7 | W6SNU7_9CYAN | EYHHLNFGEVWLKAHFEE SKAELEAANRQNLPLVWKMLNQVEKDA S I LGMEKEALIEDFM
tr | H1WAD2 | H1WAD2_9CYAN | EYHHLNFGEVWLKAHFEE SKAELEAANRQNLPLVWKMLNQVEKDA S I LGMEKEALIEDFM
tr | K6DQI0 | K6DQI0_ARTPT | EYHHLNFGEVWLKAHFEE SKAELEAANRQNLPLVWKMLNQVEKDA S I LGMEKEALIEDFM
tr | D5A1Z8 | D5A1Z8_ARTPN | EYHHLNFGEVWLKAHFEE SKAELEAANRQNLPLVWKMLNQVEKDA S I LGMEKEALIEDFM
tr | U7QM55 | U7QM55_9CYAN | EYMLHNFGEVWLKAHFEE SKAELEAANSQNLPIVWKMLNEVEKDAH I LGMEKDALVEDFM
tr | A0YKK4 | A0YKK4_LYN5P | EYMLHNFGEVWLKAHFEE SKAELEQANSQNLPLVWKMLNEVENDA H I LGMEKDALVEDFM
tr | A3Z6M0 | A3Z6M0_9SYNE | ESEHLDYAEATWLRHFQDQVKARVSAVVVEALPTLAMLQSLAADM R I GMDEPVELTASFS
tr | B5ILL6 | B5ILL6_9CHRO | EYTHLNYGQEWLKANLADVRE EELQANRENPLVVRKMLEQVAGDA AVLQMDKEDLMADFL
tr | A3YYU8 | A3YYU8_9SYNE | EYTHLNYGQEWLKANLE SSRGELQANRVNPLVVRKMLEQVAGDA AVLHMQQEDLMADFM
tr | A2C7S0 | A2C7S0_PROM3 | EYTHLNYGQEWLKANLE SCREELLEANRENPLIRRMLDQVAGDA AVLQMDKEDLIEDFL
tr | Q7V6D4 | ALDEC_PROMM | EYTHLNYGQEWLKANLE SCREELLEANRENPLIRRMLDQVAGDA AVLQMDKEDLIEDFL
tr | A5GUD0 | A5GUD0_SYNR3 | EYTHLNYGQEWLKANFDS SRDEIIEANKANLPIIRRMLEEVADDA ELKMEKESLIEDFL
tr | K9P3X5 | K9P3X5_CYAGP | EYTHLNYGQEWLKAHLEE SRAELQANRDNPLPHVRRMLDRVAADA AVLHMEKEDLIEDFL
tr | Q0I8M9 | Q0I8M9_SYNS3 | EYTHLNYGQEWLKANFEAS RDELMEANKVNLPLIRSMLEQVAADA SVLHMEKEDLIEDFL
tr | G4FIH8 | G4FIH8_9SYNE | EYTHLNYGQEWLKANFEAS RDELMEANKVNLPLIRSMLEQVAADA SVLHMEKEDLIEDFL
tr | Q05RJ5 | Q05RJ5_9SYNE | EYTHLNYGQEWLKANFEAS KDELMEANKVNLPLIRSMLEEVAKDA AVLHMEKEDLIEDFL
tr | A5GJG5 | A5GJG5_SYNPW | EYTHLNYGQEWLKANFEAS REELMEANKVNLPLIRSMLEQVAKDA AVLKMEKEDLIEDFL
tr | A4CS34 | A4CS34_SYNPV | EYTHLNYGQEWLKANFDAS REELMEANKVNLPLIRSMLEQVAEDA AVLKMEKEDLIEDFL
tr | A3Z5H6 | A3Z5H6_9SYNE | EYTHLNYGQEWLKANFEAS KDELMEANKANLPLIRSMLEQVAADA AVLQMEKEDLIEDFL
tr | Q060S1 | Q060S1_9SYNE | EYTHLNYGQEWLKANFEAS KDEMFAANKANLPLIRSMLEGVAAADA AVLHMEKEDLIEDFL
tr | Q3AV61 | Q3AV61_SYNS9 | EYTHLNYGQEWLKANFEAS KDEMFAANKANLPLIRSMLEGVAAADA AVLHMEKEDLIEDFL
tr | Q0QKQ4 | Q0QKQ4_9SYNE | EYTHLNYGQEWLKANFEAS KEELFEANKANLPLIRSMLEEDVAADA AVLHMEKEDLIEDFL
tr | Q0QM11 | Q0QM11_9SYNE | EYTHLNYGQEWLKANFEAS KDELFEANKANLPLIRSMLEDDVAGDA AVLHMEKEDLIEDFL
tr | Q3ALN2 | Q3ALN2_SYNSC | EYTHLNYGQEWLKANFEAS KNELEFEANKANLPLIRSMLEEDVAADA AVLHMEKEDLIEDFL
tr | W0GVR9 | W0GVR9_9SYNE | EYTHLNYGQEWLKANFEAS KDELFEANKANLPLIRSMLEEDVAADA AVLHMEKEDLIEDFL
tr | Q0QKF3 | Q0QKF3_9SYNE | EYTHLNYGQEWLKANFEAS KDELFEANKANLPLIRSMLEEDVASDA AVLHMEKEDLIEDFL
tr | Q7U5G9 | Q7U5G9_SYNPX | EYTHLNYGQEWLKANFEAS KDELFEANKANLPLIRSMLEEVASDA AVLHMEKEDLIEDFL
tr | Q0QKK1 | Q0QKK1_9SYNE | EYTHLNYGQEWLKANFEAS KDELFEANKANLPLIRSMLEEVASDA AVLHMEKEDLIEDFL
tr | A2C0Z0 | A2C0Z0_PROM1 | EYLHLNYGQEWLKANLET VKKDLMRANKENLPLIKSMLDEVSNDAE VLHMDKEELMEEFM
tr | Q46GP5 | Q46GP5_PROMT | EYLHLNYGQEWLKANLET VKKDLMRANKENLPLIKSMLDEVSNDAE VLHMDKEELMEEFM
tr | A8G3P7 | A8G3P7_PROM2 | EYLHLNYGQEWLKENLSTCKDELIAANKVNLPLIKKMLDQVAEDA ATLSMDKEELMEEFM
tr | A2BVJ4 | A2BVJ4_PROM5 | EYLHLNYGQEWLKENLSTCKDELIAANKVNLPLIKKMLDQVADDA ATLAMDKEELMEEFM
tr | Q7V2E8 | Q7V2E8_PROMP | EYLHLNYGQEWLKENLSTCKDELMEANKVNLPLIKKMLDQVSEDA SVLAMDREELMEEFM
tr | Q31C02 | Q31C02_PROM9 | EYLHLNYGQEWLKKNLSTCKEELMEANKVNLPLIKKMLDEVAEDA SVLAMDREELMEEFM
tr | A2BQ13 | A2BQ13_PROMS | EYLHLNYGQEWLKENLSTCKEELMEANKVNLPLIKKMLDEVADDA SVLAMDREELMEEFM
tr | A3PBQ6 | A3PBQ6_PROM0 | EYLHLNYGQEWLKENLSTCKDELMEANKVNLPLIKKMLDEVADDA SVLAMDREELMEEFM
tr | A9BEF6 | A9BEF6_PROM4 | EYLHLNYGQEWLKANLATCKDELIAANKENLPLINSMLDQVANDA QVLYMEKEELMEEFM
tr | Q7VD51 | Q7VD51_PROMA | EYLHLNYGQEWLKANLDTCKEELMKANKENLPLIKSMLDQVADDA CSLSMDKEELMEEFM
tr | B8HLW2 | B8HLW2_CYAP4 | EYSHLNFGEVWLQNAFEQCKDEIITANRLALPLIWKMLNQVTGELR I LGMDKASLVEDFS
tr | U9VZT6 | U9VZT6_9CYAN | EYHHLNFGEVWLKAHFETVKALETANRQVPLPIWRMLNQVEADLQ TVGMDKQTLIEAFL
tr | K9EQR0 | K9EQR0_9CYAN | EYHHLNFGEVWLKAHFETVKALETANRQVPLPIWQMLNQVDADLQ TVGMDKQTLIESFL

```

...210.....220.....230..
: :* :*: : :

sp	B2J1M1	ALDEC_NOSP7	IQYGEALSNIGFSTRDIMRLSAYGLIGA---
tr	U5QDK0	U5QDK0_9CYAN	IQYGEALSDIGFTTRDVMKMSARGLAAAPRA
tr	Q7NGM3	Q7NGM3_GLOVI	IAYGEALGDIGFMSRDMKMSARGLASAPRO
tr	Q2JJ13	Q2JJ13_SYNJB	IAYGEALANIGFSTREVMRLSAQGLRAA---
tr	Q2JX62	Q2JX62_SYNJA	IAYGEALASIGFNTREVMRLSAQGLRAA---
tr	K9RTZ6	K9RTZ6_SYNP3	IQYSGALENIGFTTREIMKMSMHGLVAA---
tr	Q8DJB4	Q8DJB4_THEEB	IQYSGALENIGFTTREIMKMSVYGLTGA---
tr	V5V382	V5V382_9CHRO	IQYSGALENIGFTTREIMKMSVYGLTAA---
tr	B0C9L0	B0C9L0_ACAM1	IQYGEALSNIGFSTGEIMRMSAYGLVAA---
tr	B8HSZ3	B8HSZ3_CYAP4	IQYGEALENIGFSTREIMRMSVYGLSAA---
tr	L8LLH3	L8LLH3_9CHRO	ISYGEALGNIGFNTRIMRLSSQGLKVA---
tr	K9Z5G1	K9Z5G1_CYAAP	ISYGEALANIGFSTREIMKMSVYGLRGA---
tr	I4FNH9	I4FNH9_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4I7T6	I4I7T6_9CHRO	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4HKI6	I4HKI6_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	B0JY93	B0JY93_MICAN	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4GYG9	I4GYG9_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4IM50	I4IM50_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4FD05	I4FD05_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	L7E3D3	L7E3D3_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	L8NPI8	L8NPI8_MICAE	ISYGEALNINIGFSTRDIMRMSAYGLTAV---
tr	A8YJD6	A8YJD6_MICAE	ISYGEALNINIGFSTRDIMRMSAYGLTAV---
tr	S3JGS6	S3JGS6_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4GKL8	I4GKL8_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4HLI6	I4HLI6_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4FY74	I4FY74_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	I4H417	I4H417_MICAE	ISYGEALSNIGFSTRDIMRMSAYGLTAV---
tr	M1LIQ1	M1LIQ1_9SYNC	ISYGEALSNIGFSTREIMRMSVYGLAGV---
tr	H0NYN3	H0NYN3_9SYNC	ISYGEALSNIGFSTREIMRMSVYGLAGV---
tr	H0PB35	H0PB35_9SYNC	ISYGEALSNIGFSTREIMRMSVYGLAGV---
tr	H0PG18	H0PG18_9SYNC	ISYGEALSNIGFSTREIMRMSVYGLAGV---
tr	F7US88	F7US88_SYNYG	ISYGEALSNIGFSTREIMRMSVYGLAGV---
sp	Q55688	ALDEC_SYNY3	ISYGEALSNIGFSTREIMRMSVYGLAGV---
tr	D3EPA5	D3EPA5_ATETH	ISYGEALGNIGFSTREIMRMSHGLRAS---
tr	B7JUH1	B7JUH1_CYAP8	ISYGEALSNIGFSTRDIMRMSHGLVAA---
tr	C7QUV0	C7QUV0_CYAP0	ISYGEALSNIGFSTRDIMRMSHGLVAA---
tr	G5J0P0	G5J0P0_CROWT	ISYGEALGNIGFSTREIMKMSAHGLAAV---
tr	T2JF13	T2JF13_CROWT	ISYGEALGNIGFSTREIMKMSAHGLAAV---
tr	Q4C7T3	Q4C7T3_CROWT	ISYGEALGNIGFSTREIMKMSAHGLAAV---
tr	T2IH71	T2IH71_CROWT	ISYGEALGNIGFSTREIMKMSAHGLAAV---
tr	A3INE1	A3INE1_9CHRO	ISYGEALSNIGFSTREIMKMSHGLSAA---
tr	B1WR71	B1WR71_CYAA5	ISYGEALSNIGFSTREIMKMSAYGLRAA---
tr	U5DFA3	U5DFA3_9CHRO	VAYSEALSNIGFNAREIARMSVHGLAAA---
tr	L8N0G8	L8N0G8_9CYAN	IQYGESLGKIGFNTRDIMRMSAMGLVAA---
tr	K9SPY2	K9SPY2_9CYAN	IAYGEALGNIGFNTRDIMKMSAMGLLPA---
tr	K9SZC3	K9SZC3_9SYNE	IQYGESLGKIGFNTRDIMKMSAMGLVAA---
tr	B4WJ48	B4WJ48_9SYNE	ITYGEALANIGFSARDVMRLSAQGLAAV---
tr	U9WCI1	U9WCI1_9CYAN	ITYGEALSNIGFTSREVMKLSAQGLAMA---
tr	W5U411	W5U411_9CYAN	ITYGEALGNIGFSSRDVMRLSAQGLATA---
tr	K9F0G4	K9F0G4_9CYAN	ITYGEALGNIGFSSRDVMRLSAQGLATA---
tr	K9ULL9	K9ULL9_9CHRO	IAYGEALSNIGFNTRDIMRMSAYGLMGA---
tr	K8GFP8	K8GFP8_9CYAN	IQYGEALSNIGFTTRDIMRMSAMGLSAA---
tr	D4TEY2	D4TEY2_9NOST	IQYGEALSNIGFTTRDIMRLSAYGLATI---
tr	D4TRY1	D4TRY1_9NOST	IQYGEALSNIGFTTRDIMRLSAYGLASI---
tr	K9V615	K9V615_9CYAN	IQYGEALSNIGFNTRDIMRLSAYGLRAA---
tr	K9PTP6	K9PTP6_9CYAN	IQYGEALSNIGFTTRDIMRLSAYGLIAA---
tr	K7WTY7	K7WTY7_9NOST	IQYGEALSNIGFTTRDIMRLSAYGLATV---
tr	K9WRL8	K9WRL8_9NOST	IQYGEALSNIGFTTRDIMRLSAYGLTAA---
tr	K9ZJT3	K9ZJT3_ANACC	IQYGEALSNIGFTTRDIMRLSAYGLIPV---
tr	D7E2W1	D7E2W1_NOSA0	IQYGEALSNIGFTTRDIRLSAYGLATV---
tr	Q112R8	Q112R8_TRIEI	IAYGEALNINIGFTTGEIMRMSAYGLIAA---
sp	Q54764	ALDEC_SYNE7	IAYGEALENIGFTTREIMRMSAYGLAAV---
tr	Q8KPT4	Q8KPT4_SYNE7	IAYGEALENIGFTTREIMRMSAYGLAAV---
tr	Q5N627	Q5N627_SYNP6	IAYGEALENIGFTTREIMRMSAYGLAAV---
tr	K9RFH5	K9RFH5_9CYAN	IQYGEALSNIGFTTRDIMRLSAYGLRAA---
tr	K9TXF6	K9TXF6_9CYAN	IQYGETLANIGFSTRDIMRLSAYGLQAA---
tr	K9X9I4	K9X9I4_9CHRO	IQYGEALSNIGFTTRDIMRMSAYGLTAA---
tr	A0Z9X5	A0Z9X5_NODSP	IQYGETLSNIGFTTRDIMKMSAYGLTAA---
tr	Q3MA38	Q3MA38_ANAVT	IQYGEALSNIGFTTRDIMRMSAYGLTAA---

...210.....220.....230..
: :* :*: : :

tr	Q8YLL5	Q8YLL5_NOSS1	IQYGEALSNI GFTTRDIMRMSAYGLTAA---
tr	K9QXA2	K9QXA2_NOSS7	IQYGEALSNI GFTTRDIMRLSAYGLTAA---
tr	M1X0T0	M1X0T0_9NOST	IQYGEALNNIGFSTRDIMRLSAYGLRKI---
tr	M1WVU9	M1WVU9_9NOST	IQYGEALNNIGFSTRDIMRLSAYGLRKV---
tr	K9S7C1	K9S7C1_9CYAN	IQYGEALDNIGFTTREIMRMSAYGLATI---
tr	K9W4T2	K9W4T2_9CYAN	IAYGEALSNI GFTTRDIMRMSAYGLTAA---
tr	G6FV22	G6FV22_9CYAN	IQYGEALSNI GFNTRDIMRLSAYGLRAA---
tr	W5U379	W5U379_9CYAN	IQYGEALSNI GFNTRDIMRLSAYGLRAA---
tr	W5U417	W5U417_9CYAN	IQYGEALSNI GFNTRDIMRLSAYGLRTA---
tr	K9QA48	K9QA48_9NOSO	IQYGEALSKIGFTTRDIMRLSAYGLSAA---
tr	G9HTG5	G9HTG5_9NOSO	IQYGEALSNI GFSTTRDIMRLSAYGLTAA---
tr	H2DDT7	H2DDT7_NOSS6	IQYGEALSNI GFTTRDIMRLSAYGLTAA---
tr	K9YV86	K9YV86_DACSA	IAYGEALSNI GFSTRDIMRMSAYGLREV---
tr	K9Y9U4	K9Y9U4_HALP7	IAYGEALSNI GFNTREIMKMSAYGLREG---
tr	W5U332	W5U332_PLAAG	IAYGEALSNI GFSTRDIMRMSAYGLIAA---
tr	F5UGX9	F5UGX9_9CYAN	IAYGEALGNIGFNTRDIMRMSAQGLAA---
tr	K9VE50	K9VE50_9CYAN	IAYGEALGNIGFNTRDIMRMSAQGLAA---
tr	D8FVZ2	D8FVZ2_9CYAN	IAYGEALSNI GFTTRDIMRMSAYGLTAA---
tr	B4VSW8	B4VSW8_9CYAN	IAYGEALSNI GFTTRDIMRMSAYGLTAA---
tr	K9WII2	K9WII2_9CYAN	IAYGEALSNI GFTTRDIMRMSAYGLTAA---
tr	K9TGS5	K9TGS5_9CYAN	IAYGEALSTIGFTTRDIMRMSAYGLAGA---
tr	B5W0S5	B5W0S5_ARTMA	IAYGEALSNI GFTTRDIMRMSAYGLAGV---
tr	K1WZT6	K1WZT6_ARTPT	IAYGEALSNI GFTTRDIMRMSAYGLAGV---
tr	W6SNU7	W6SNU7_9CYAN	IAYGEALSNI GFTTRDIMRMSAYGLAGV---
tr	H1WAD2	H1WAD2_9CYAN	IAYGEALSNI GFTTRDIMRMSAYGLAGV---
tr	K6DQI0	K6DQI0_ARTPT	IAYGEALSNI GFTTRDIMRMSAYGLAGV---
tr	D5A1Z8	D5A1Z8_ARTPN	IAYGEALSNI GFTTRDIMRMSAYGLAGV---
tr	U7QM55	U7QM55_9CYAN	IAYGEALNNMGFTTREIMRMSAYGLKGA---
tr	A0YKK4	A0YKK4_LYNP	IAYGEALNNIGFTTREIMRMSAHGLTTA---
tr	A3Z6M0	A3Z6M0_9SYNE	ELFREALESVGF EAVEARLLMRAAARMV---
tr	B5ILL6	B5ILL6_9CHRO	SSYQEALMDIGFTGREIAKLAAAALVG---
tr	A3YU8	A3YU8_9SYNE	TSYQEALTDIGFTTREI AKMATAALLG----
tr	A2C7S0	A2C7S0_PROM3	IAYQESLTEIGFNTR EITRMAAALVS----
sp	Q7V6D4	ALDEC_PROMM	IAYQESLTEIGFNTR EITRMAAALVS----
tr	A5GUD0	A5GUD0_SYNR3	IAYQEALMDIGFN SRDLARMSAAALVA----
tr	K9P3X5	K9P3X5_CYAGP	IAYQDALTDIGFTPREI ARMAAALVG----
tr	Q0I8M9	Q0I8M9_SYNS3	IAYQEALNEIGFSSRDIARMAAALS I----
tr	G4FIH8	G4FIH8_9SYNE	IAYQEALNEIGFSSRDIARMAAALTV----
tr	Q05RJ5	Q05RJ5_9SYNE	IAYQEALNEIGFSSRDIARMAAALAV----
tr	A5GJG5	A5GJG5_SYNPW	IAYQEALNEIGFSSRDIARMAAALS I----
tr	A4CS34	A4CS34_SYNPV	IAYQEALNEIGFSSRDIARMAAALAV----
tr	A3Z5H6	A3Z5H6_9SYNE	IAYQEALCEIGFSSRDIARMAAALAV----
tr	Q060S1	Q060S1_9SYNE	IAYQEALNEIGFSSRDIARMAAALAI----
tr	Q3AV61	Q3AV61_SYNS9	IAYQEALNEIGFSSRDIARMAAALAI----
tr	Q0QKQ4	Q0QKQ4_9SYNE	IAYNEALSEIGFSSRDIARMAAALAL----
tr	Q0QM11	Q0QM11_9SYNE	IAYQEALGEIGFTSRDIARMAAALAV----
tr	Q3ALN2	Q3ALN2_SYNSC	IAYQEALGEIGFTSRDIARMAAALAV----
tr	W0GVR9	W0GVR9_9SYNE	IAYQEALGEIGFTSRDIARMAAALAV----
tr	Q0QKF3	Q0QKF3_9SYNE	IAYQEALGEIGFTSRDIARMAAALAV----
tr	Q7U5G9	Q7U5G9_SYNPX	IAYQEALGEIGFTSRDIARMAAALAV----
tr	Q0QKK1	Q0QKK1_9SYNE	IAYQEALGEIGFTSRDIARMAAALAV----
tr	A2C0Z0	A2C0Z0_PROM1	IAYQDSLLEIGLDNREI ARMALAAVI-----
tr	Q46GP5	Q46GP5_PROMT	IAYQDSLLEIGLDNREI ARMALAAVI-----
tr	A8G3P7	A8G3P7_PROM2	IAYQDALLEMGLDNREI ARMAMAAIV-----
tr	A2BVJ4	A2BVJ4_PROM5	IAYQDALLEMGLDNREI ARMAMAAIV-----
tr	Q7V2E8	Q7V2E8_PROMP	IAYQDTLLEIGLDNREI ARMAMAAIV-----
tr	Q31C02	Q31C02_PROM9	IAYQDTLLEIGLDNREI ARMAMAAIV-----
tr	A2BQ13	A2BQ13_PROMS	IAYQDTLMEIGLDNREI ARMAMAAIV-----
tr	A3PBQ6	A3PBQ6_PROM0	IAYQDTLMEIGLDNREI ARMAMAAIV-----
tr	A9BEF6	A9BEF6_PROM4	IAYQDSLMEIGLDAREI ARMALAAIA-----
tr	Q7VD51	Q7VD51_PROMA	IAYQDSLLEIGLDSREI ARMALAAALV-----
tr	B8HLW2	B8HLW2_CYAP4	TRYGEALGQIGFKLSEI LSLSVQGLQAVTP-
tr	U9VZT6	U9VZT6_9CYAN	VNYSEALKEIGFNTR EILRMASHGLTSSDQR
tr	K9EQR0	K9EQR0_9CYAN	VHYSEALKEIGFSSREI LRMASHGLASSKQR