

10 20 30 40 50 60 70 80

A. tamarense 1 MARSSALASSCAAALLCCLALRCSGAFLFVPAARGLRGDA--IVATAGAAAAAGLPDAAGAFVYDNQ¹YEYFDITFGISPLY

A. tamarense 2 MARASALATLCVLAMLCCVALQCSTAF²FLPGPVTRGVHGEAAVAVATAGLAAATSLPGTASAFVYDNQ²YEYFDITFGISPLY

A. tamarense 3 MARASALATLCVLAMLCCVALQCSTAF³FLPGPVTRGVQSDAAIAVATAGLAAATSLPDTASAFVYDNQ³YEYFDITFGISPLY

L. polyedrum MARS⁴PALTVLCVATAACCLAWQCSRAFLPAPQVPAPAAQLLRGSAAVAGAAAAAGLPGSAQAQAFVYDGKEYFDIFFGISP⁴LA

P. lunula MARASSLVAFSAALALCTIFALCSANAFVPAARATP⁵PALLMHGEAAAAAATAVAMPTAAEAFFYDGREYFDITYGISPLY

possible plastid-targeting sequence

90 100 110 120 130 140

A. tamarense 1 WGLAAF⁵GILVYGAVVKNAALKYNKPYGTTTIVDPKPEKTDQYKGTIEEFGPNPEAEGKYAGY

A. tamarense 2 WGLAAF⁶GILVYGAVVKNAALKYNKPYGTTTIVDPKPEKTDQYKGTIEEFGPNPEAEGKFAGY

A. tamarense 3 WGLAAF⁷GILVYGAVVKNAALKYNKPYGTTTIVDPTPEKTDAYKGTIEEFGPNPEAEGKYAGY

L. polyedrum WAF⁸TAFSIVFFGAVLKNAALKYNKPF⁸GTTTLKDPAPFKPGANFVGMEEVETGADPFRG----

P. lunula WGIAAF⁹CLITYGAILKNAAMKYNKKMDLSP⁹RTGKFV⁹PORVONKDAPYRVKGMKN-----

10 20 30 40 50 60 70 80
A. tamarensis
 -----RGQVSLRARGGGEYDVSDADIEAFYQALRTGQGGD
L. polyedrum MARRGVLLPVAVLAAVLLKASHVALQSFVSFAAPLAPAPQHSLOARSPISLRARGGGEYDVSDADIEAFYAETITGGGGN
A. carterae -----LALGILVVAALAGMQVLNFLVAPSAHSTPQAPSRTTVALRARGGGEYDVSDADVAAFYAETISGTGGD
P. lunula -----ETISGTGGD
 90 100 110 120 130 140 150 160
A. tamarensis PAKGTVVSELIVKFFHGEFTKQGFKRYSGLWKGPPPGNIGKKDIAVGMEESLKTQMANPMFVTKGGIGYGVDETQKVVNDN
L. polyedrum PPKGTVTAELIVKHFFYGEFTPQGFKRYSGMWMGPPRGITGNKDIAEGMKGLQEOMKNPMYVTKGGVGYGVDETQKVVDDG
A. carterae PPKGTIVAELIVKFFHGEFTPQGFKRYSGLWKGPPPGTIGKKDIAIAMEGLKTQMKNPMFVTKGGVGYGIDETMKVADDG
P. lunula PPKGTITAEELIVKFFHGEFTPQGFKRYSGLWKGPPPGTIGKRDISVGMAASLKEQMKNPMFVSKGGVGYGVDETQKVVDDG
 170 180 190 200 210 220
A. tamarensis KGWVWLAAEEMSPGGLAVELFQSVYPYKRAILVAKQANVDELFVSNWDVALANIEKTLGGPQVKQR
L. polyedrum KGWVWLAADMSPGGLAVELFQSVYPYKRAILLVAKXSNIDEMFTKVNWDLMNXPIDTTLGGPQVVR
A. carterae KGYTWIAAEEMSPGGLAIELFQAVPYKRALFCAKKMEDEMFQXINWALMDKRIDTTLGGPQIKQR
P. lunula KGWVWIAAEEMSPGGLALEMFQSVPL-----