Metagenomic sequence

>MES00003359801 Putative uncharacterized protein GOS_8314262 OS=marine metagenome Pep=JCVI_PEP_1096676037173SV=1
MGKKEDQMDPGNKKLDAKARYSAGVLEYKKMGYWEPDYLPKDTDVIALFRITPQDGVDPIEAAAAVAGESSTATWTVVWTDRLTACEKYRAKAYRVDPTP
NNPNEYFAYIAYELDLFEPGSIANLTASIIGNVFGFKPLKALRLEDMRLPVAYVKTFQGPATGIVVERERLNCYGRPLLGATVKPKLGLSGRNYGRVVYEALKG
GLDFTKDDENINSQPFMHWRDRFLYCMEAVNRASAATGEVKGTYLNVTAGTMEEMYKRAEFAKELGSVIIMIDLVIGYTAIQSMAKWARDNDMILHLHRAGH
GTYTRQKTHGVSFRVIAKWMRLAGVDHIHAGTVVGKLEGDPATTKGYYDICREENWVSLETGVFFDQDWASLNKVMPVASGGIHAGQMHQLIHYLGEDVV
LQFGGGTIGHPQGIAAGATANRVALEAMVYARNAGRDYLAEGPTLAEAAKTCTPLREALDVWKDVTFDYASTDAPDFVPTTSVS

InterPro Matches

BLASTP (version 2.2.17[Aug-26-2007])
Database: swissprot
Sequence: UP1000114F3EB status:active
Length: 492

Launched Sun, Oct 26, 2008 at 15:59:42
Finished Sun, Oct 26, 2008 at 15:59:51

Fast Family and Domain Prediction

Subject	Match	Families and Domains
RBL_OLICA		IPR017443 CBWE3D
>Q6LBA6		IPR017443 SSF
		IPR000685 CBWE3D
		IPR000685 PFAM
		IPR000685 PROSITE
		IPR000685 SSF
		IPR017444 PFAM

InterPro: IPR000685 Ribulose bisphosphate carboxylase, large subunit, C-terminal

InterPro: IPR017443 Ribulose bisphosphate carboxylase, large subunit, ferrodoxin-like N-terminal

InterPro: IPR017444 Ribulose bisphosphate carboxylase, large subunit, N-terminal

UniProt automatic annotations

Names and origin Hide | Top

Protein names: Recommended name:
Ribulose bisphosphate carboxylase large chain
Short name=RuBisCO large subunit
EC=4.1.1.39

General annotation (Comments) Hide | Top

Function: RuBisCO catalyzes two reactions: the carboxylation of D-ribulose 1,5-bisphosphate, the primary event in carbon dioxide fixation, as well as the oxidative fragmentation of the pentose substrate. Both reactions occur simultaneously and in competition at the same active site. By similarity.

Catalytic activity: 2 3-phospho-D-glycerate + 2 H+ = D-ribulose 1,5-bisphosphate + CO2 + H2O.
3-phospho-D-glycerate + 2-phosphoglycolate = D-ribulose 1,5-bisphosphate + O2.

Cofactor: Binds 1 magnesium ion per subunit.

Seq similarities: Belongs to the RuBisCO large chain family. Type I subfamily.

Ontologies Hide | Top

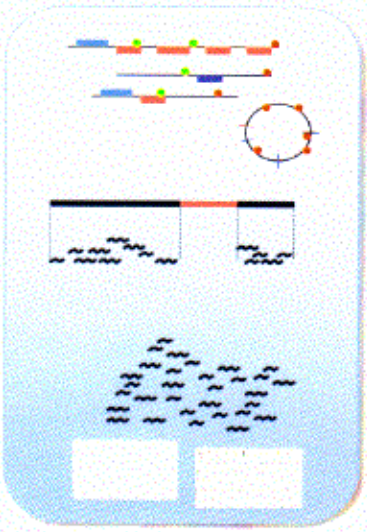
Keywords
Biological process: Calvin cycle
Carbon dioxide fixation
Ligand: Magnesium
Metal-binding
Molecular Function: Lyase
Monooxygenase
Oxidoreductase

Gene Ontology (GO)
Biological process: ribulose-bisphosphate carboxylase activity
Inferred from electronic annotation. Source: HAMAP

ENA-Annotation
Feature annotation

ENA-Assembly
Assembly information

ENA-Reads
Sequencing and sampling information



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