

Protein TRIGALACTOSYLDIACYLGLYCEROL 2 (TGD2), Recombinant Protein

Cat *RP01344*

Size *0.02 mg/ 0.1 mg/ 5x0.1 mg*

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* Protein TRIGALACTOSYLDIACYLGLYCEROL 2, chloroplastic (TGD2)

Product Gene Name

TGD2 recombinant protein

Product Synonym Gene Name

ABC15

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

AASNSDAAHG QPSSDGGKNP LTVVLDVPRN IWRQTLKPLS DFGFGKRSIW EGGVGLFIVS GATLLALSWA
WLRGFQMRSK FRKYQTVFEL SHASGICTGT PVRIRGVTVG TIIRVNPSLK NIEAVAEIED DKIIIPRNSL
VEVNQSGLLM ETMIDIMPRN PIPEPSVGPL HPECGKEGLI VCDRQTIKGV QGVSLDELVG IFTRIGREVE
AIGVANTYSL AERAASVIEE ARPLLKKIQA MAEDAQPLLS EFRDSGLLKE VECLTRSLTQ ASDDLKRVNS
SIMPENDEL IQSIIYTLVY TLKNVESISS DILGFTGDEA TRKNLKLKLIK SLSRLL

Sequence Positions

46-381aa; full length protein

Format

Liquid containing glycerol

Host

Cell Free Expression

Molecular Weight

30,587 Da

Storage

Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Protein Family

Protein TRIGALACTOSYLDIACYLGLYCEROL

NCBI Accession

NP_566659.1

NCBI GI

18402572

NCBI GenBank Nucleotide

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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Cat *RP01344*

Size *0.02 mg/ 0.1 mg/ 5x0.1 mg*

NM_112923.3

NCBI GenID

821576

NCBI Official Full Name

ATP-binding cassette I15

NCBI Official Symbol

TGD2

NCBI Official Synonym Symbols

trigalactosyldiacylglycerol2

NCBI Protein Information

ATP-binding cassette I15

NCBI Summary

Encodes a permease-like component of an ABC transporter involved in lipid transfer from ER to chloroplast. A phosphatidic acid-binding protein with a predicted mycobacterial cell entry domain. It is tethered to the inner chloroplast envelope membrane facing the outer envelope membrane. Presumed bacterial orthologs of TGD1 and TGD2 in Gram-negative bacteria are typically organized in transcriptional units, suggesting their involvement in a common biological process. Mutations in this gene suppress the low temperature-induced phenotype of *Arabidopsis* tocopherol-deficient mutant *vte2*.

UniProt Gene Name

TGD2

UniProt Synonym Gene Names

AtABC115

UniProt Protein Name

Protein TRIGALACTOSYLDIACYLGLYCEROL 2, chloroplastic

UniProt Synonym Protein Names

ABC transporter I family member 15

UniProt Entry Name

TGD2_ARATH

UniProt Primary Accession

Q9LTR2

UniProt Secondary Accession

Q3EB35; Q8LDY9

UniProt Related Accession

Q9LTR2

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UniProt Comments

Component of a phosphatidic acid/lipid transport complex in the chloroplast envelope. Specifically binds phosphatidic acid (PA). Involved in lipid transfer from the endoplasmic reticulum (ER) to plastids, and necessary for thylakoids formation.

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