

Squalene synthase (SQS1), Recombinant Protein

Cat *RP00376*

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* Squalene synthase (SQS1)

Product Synonym Names

Recombinant Squalene synthase (SQS1); Squalene synthase; SQS; SS EC= 2.5.1.21; FPP:FPP farnesyltransferase Farnesyl-diphosphate farnesyltransferase

Product Gene Name

SQS1 recombinant protein

Product Synonym Gene Name

SQS1

Purity

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

Sequence

MGSLGTMRLRY PDDIYPLLKM KRAIEKAEKQ IPPEPHWGFC YSMLHKVSRS FSLVIQQLNT ELRNAVCVFY
LVLRALDVE DDTSIPTDEK VPILIAFHRH IYDTDWHYSC GTKEYKILMD QFHHVSA AFL ELEKGYQEI
EEITRRMGAG MAKFICQEEV TVDDYDEYCH YVAGLVGLGL SKLFLAAGSE VLTPDWEAIS NSMGLFLQKT
NIIRDYLEDI NEIPKSRMFV PREIWGKYAD KLEDLKYEN TNKSVQCLNE MVTNALMHIE DCLKYMVSLR
DPSIFRCAI PQIMAIGTLA LCYNNEQVFR GVVKLRRGLT AKVIDRTKTM ADVYGAFYDF SCMLKTKVVK
NDPNASKTLN RLEAVQKLCR DAGVLQNRKS YVNDKGQPNV VFIIMVVILL AIVFAYLRAN

Sequence Positions

1-410

Chromosome Location

Chromosome: 4; NC_003075.7 (16538282..16541926). Location: chromosome: 4

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

47,142 Da

Storage

Store at -20°C. For extended storage, store at -20 or -80°C.

Protein Family

Squalene synthase

NCBI Accession

NP_195190.1

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI GI

15236168

NCBI GenBank Nucleotide

NM_119630.3

NCBI GeneID

829616

NCBI Official Full Name

Squalene synthase

NCBI Official Symbol

SQS1

NCBI Official Synonym Symbols

ERG9; SQS1; SQUALENE SYNTHASE; squalene synthase 1; T4L20.220; T4L20_220

NCBI Protein Information

Squalene synthase

NCBI Summary

Encodes squalene synthase, which converts two molecules of farnesyl diphosphate (FPP) into squalene via an intermediate: presqualene diphosphate (PSPP). It is generally thought to be one of the key enzymes of sterol biosynthesis, since it catalyzes the first pathway-specific reaction of the sterol branch of the isoprenoid pathway.

UniProt Gene Name

SQS1

UniProt Synonym Gene Names

SQS; SS

UniProt Protein Name

Squalene synthase

UniProt Synonym Protein Names

FPP:FPP farnesyltransferase; Farnesyl-diphosphate farnesyltransferase

UniProt Entry Name

FDFT_ARATH

UniProt Primary Accession

P53799

UniProt Related Accession

P53799

UniProt Comments

Catalytic activity: 2 farnesyl diphosphate + NAD(P)H = squalene + 2 diphosphate + NAD(P)⁺. Cofactor: Magnesium. Pathway: Terpene metabolism; lanosterol biosynthesis; lanosterol from farnesyl diphosphate: step

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1/3. Subcellular location: Endoplasmic reticulum membrane; Multi-pass membrane protein By similarity. Tissue specificity: Expressed in all tissues analyzed (inflorescences, leaves, stems and roots). Highly expressed in roots. Sequence similarities: Belongs to the phytoene/squalene synthase family.

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