

Product datasheet for SC310416

FDPS (NM 002004) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: FDPS (NM_002004) Human Untagged Clone

Tag: Tag Free Symbol: FDPS

Synonyms: FPPS; FPS; POROK9

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_002004 edited

ATGCCCCTGTCCCGCTGGTTGAGATCTGTGGGGGTCTTCCTGCTGCCAGCCCCCTACTGG GTCCTGGCCTGCCACAGTGCCCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCC CTTTGCTCCTCCGCAGAATGAACGGAGACCAGAATTCAGATGTTTATGCCCAAGAAAAG CACCCAGAGATAGGAGATGCTATTGCCCGGCTCAAGGAGGTCCTGGAGTACAATGCCATT GGAGGCAAGTATAACCGGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTGGTGGAGCCA AGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAACTG CTGCAAGCTTTCTTCCTGGTGGCAGATGACATCATGGATTCATCCCTTACCCGCCGGGGA CAGATCTGCTGGTATCAGAAGCCGGGCGTGGGTTTGGATGCCATCAATGATGCTAACCTC CTGGAAGCATGTATCTACCGCCTGCTGAAGCTCTATTGCCGGGAGCAGCCCTATTACCTG AACCTGATCGAGCTCTTCCTGCAGAGTTCCTATCAGACTGAGATTGGGCAGACCCTGGAC CTCCTCACAGCCCCCAGGGCAATGTGGATCTTGTCAGATTCACTGAAAAGAGGTACAAA TCTATTGTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCCTATAGCTGCAGCCATG TACATGGCAGGAATTGATGGCGAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAG ATGGGGGAGTTCTTCAGATTCAGGATGATTACCTTGACCTCTTTGGGGACCCCAGTGTG CTGCAACGGGCCACTCCAGAACAGTACCAGATCCTGAAGGAAAATTACGGGCAGAAGGAG GCTGAGAAAGTGGCCCGGGTGAAGGCGCTATATGAGGAGCTGGATCTGCCAGCAGTGTTC TTGCAATATGAGGAAGACAGTTACAGCCACATTATGGCTCTCATTGAACAGTACGCAGCA CCCCTGCCCCAGCCGTCTTTCTGGGGCTTGCGCGCAAAATCTACAAGCGGAGAAAGTGA

Restriction Sites: Please inquire ACCN: NM_002004

Insert Size: 1300 bp



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FDPS (NM_002004) Human Untagged Clone - SC310416

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method: 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

RefSeq: <u>NM 002004.2</u>, <u>NP 001995.1</u>

 RefSeq Size:
 1345 bp

 RefSeq ORF:
 1260 bp

 Locus ID:
 2224

 UniProt ID:
 P14324

 Cytogenetics:
 1q22

Domains: polyprenyl_synt

Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Terpenoid backbone biosynthesis

Gene Summary: This gene encodes an enzyme that catalyzes the production of geranyl pyrophosphate and

farnesyl pyrophosphate from isopentenyl pyrophosphate and dimethylallyl pyrophosphate. The resulting product, farnesyl pyrophosphate, is a key intermediate in cholesterol and sterol biosynthesis, a substrate for protein farnesylation and geranylgeranylation, and a ligand or agonist for certain hormone receptors and growth receptors. Drugs that inhibit this enzyme prevent the post-translational modifications of small GTPases and have been used to treat

diseases related to bone resorption. Multiple pseudogenes have been found on

chromosomes 1, 7, 14, 15, 21 and X. Multiple transcript variants encoding different isoforms

have been found for this gene.[provided by RefSeq, Oct 2008]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform (a). Both variants 1 and 2 encode the same isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the

transcript record were based on alignments.