

## Product datasheet for RC227945

### FDPS (NM\_001135821) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FDPS (NM_001135821) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FDPS
Synonyms:	FPPS; FPS; POROK9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227945 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCCTGTCCCGCTGGTTGAGATCTGTGGGGTCTTCCTGCTGCCAGCCCCCTACTGGGCACCCCGG  
AGAGGTGGCTGGTTCCCTACGGCGGCCCTCCCTGGTGCACGGGTACCCAGTCTGGCCTGGCACAGTGC  
CCGCTGCTGGTGCCAAGCGTGGACAGAGGAACCTCGAGCCCTTTGCTCCTCCCTCAGAATGAACGGAGAC  
CAGAATTCAGATGTTTATGCCAAAGAAAAGCAGGATTTTCGTTCACTTCTCCAGATCGTTAGGGTGC  
TGACTGAGGATGAGATGGGGCACCCAGAGATAGGAGATGCTATTGCCCGCTCAAGGAGTCTGGAGTA  
CAATGCCATTGGAGGCAAGTATAACCGGGTTTGACGGTGGTAGTAGCATTCCGGGAGCTGGTGGAGCCA  
AGGAAACAGGATGCTGATAGTCTCCAGCGGGCCTGGACTGTGGGCTGGTGTGTGGAAGTCTGCAAGCTT  
TCTTCTGGTGGCAGATGACATCATGGATTATCCCTTACCCGCCGGGGACAGATCTGCTGGTATCAGAA  
GCCGGGCTGGGTTTGGATGCCATCAATGATGCTAACCTCCTGGAAGCATGTATCTACCGCTGCTGAAG  
CTCTATTGCCGGGAGCAGCCCTATTACCTGAACCTGATCGAGCTTCTCAGAGATTCTATCAGACTG  
AGATTGGCAGACCCTGGACCTCCTCACAGCCCCCAGGGCAATGTGGATCTTGTGAGATTCACTGAAAA  
GAGGTACAAATCTATTGTCAAGTACAAGACAGCTTTCTACTCCTTCTACCTTCTATAGCTGCAGCCATG  
TACATGGCAGGAATTGATGGCGAGAAGGAGCACGCCAATGCCAAGAAGATCCTGCTGGAGATGGGGGAGT  
TCTTTCAGATTACAGGATGATTACCTTGACCTCTTTGGGGACCCAGTGTGACCGGCAAAATTGGCACTGA  
CATCCAGGACAACAAATGCAGCTGGCTGGTGGTTCAGTGTCTGCAACGGGCCACTCCAGAACAGTACCAG  
ATCCTGAAGGAAAATTACGGGCAGAAGGAGGCTGAGAAAGTGGCCGGGTGAAGGCCTATATGAGGAGC  
TGGATCTGCCAGCAGTGTCTTGAATATGAGGAAGACAGTTACAGCCACATTATGGCTCTCATTGAACA  
GTACGCAGCACCCCTGCCCCAGCCGTCTTTCTGGGGCTTGCAGCAAAATCTACAAGCGGAGAAAAG

**ACGGT**ACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC227945 protein sequence  
Red=Cloning site Green=Tags(s)

MPLSRWLRVSGVFLLPAPYWAPRERWLGSLRRPSLVHGYVPLAWHSARCWCQAWTEEPRALCSSLRMNGD  
 QNSDVYAQEKQDFVQHF SQIVRVL TEDEMGHPEIGDAIARLKEVLEYNAIGGKYNRGLTVVVAFRELV  
 RKQDADSLQRAWTVGWCVELLQAFFLVADDIMDSSLTRRGQICWYQKPGVGLDAINDANLLEACIYRLK  
 LYCREQPYLNLIELFLQSSYQTEIGQTLDLLTAPQGNVDL VRFTEKRYKSIVKYKTAFYSFYLP  
 IAAM YMAGIDGKEKEHANAKKILLEMGEFFQIQDDYLDLFGDPSVTGKIGTDIQDNKCSWL  
 VVQCLQRATPEQYQ ILKENYGQKEAEKVARVKALYEELDLPAVFLQYEEDSYSHIMALIEQYAA  
 PLPPAVFLGLARKIYKRRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6154\\_f10.zip](https://cdn.origene.com/chromatograms/mk6154_f10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001135821

**ORF Size:** 1257 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:** [NM\\_001135821.2](#)

**RefSeq Size:** 1500 bp

**RefSeq ORF:** 1260 bp

**Locus ID:** 2224

**UniProt ID:** [P14324](#)

**Cytogenetics:** 1q22

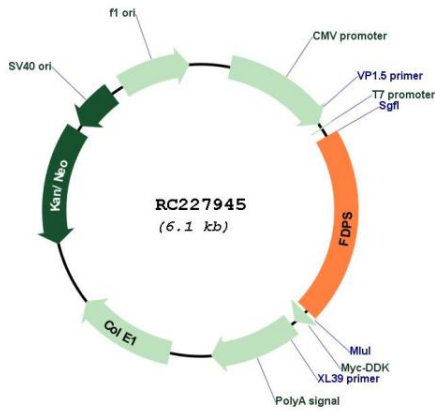
**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Terpenoid backbone biosynthesis

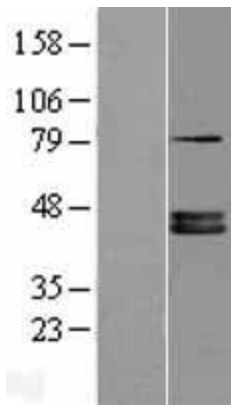
**MW:** 48.3 kDa

**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]

Product images:



Circular map for RC227945



Western blot validation of overexpression lysate (Cat# [LY427716]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227945 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).