

## Product datasheet for **RC202699**

### GGPS1 (NM\_004837) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GGPS1 (NM_004837) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GGPS1
Synonyms:	GGPPS; GGPPS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202699 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGGAGAAGACTCAAGAAACAGTCCAAAGAATTCTTCTAGAACCCTATAAATACTTACTTCAGTTACCAG  
GTAACAAGTGAGAACCAAACCTTCACAGGCATTTAATCATTGGCTGAAAGTTCCAGAGGACAAGCTACA  
GATTATTATTGAAGTGACAGAAATGTTGCATAATGCCAGTTTACTCATCGATGATATTGAAGACAACCTCA  
AAACTCCGACGTGGCTTCCAGTGGCCACAGCATCTATGGAATCCCATCTGTCATCAATTCTGCCAATT  
ACGTGTATTTCTTGGCTTGGAGAAAGTCTTAACCCTTGATCACCCAGATGCAGTGAAGCTTTTTACCCG  
CCAGCTTTTGGAACTCCATCAGGACAAGGCCTAGATATTTACTGGAGGGATAATTACACTTGTCCCACT  
GAAGAAGAATATAAAGCTATGGTCTGCAGAAAACAGGTGGACTGTTGGATTAGCAGTAGGTCTCATGC  
AGTTGTTCTCTGATTACAAAGAAGATTTAAAACCCTACTTAATACACTTGGGCTCTTTTTCCAAATTAG  
GGATGATTATGCTAATCTACACTCCAAAGAATATAGTGAAAACAAAAGTTTTTGTGAAGATCTGACAGAG  
GGAAAGTTCTCATTTCCTACTATTATGCTATTTGGTCAAGGCCTGAAAGCACCCAGGTGCAGAATATCT  
TGCGCCAGAGAACAGAAAACATAGATATAAAAAAATACTGTGTACATTATCTTGAGGATGTAGGTTCTTT  
TGAATACACTCGTAATACCCTTAAAGAGCTTGAAGCTAAAGCCTATAAACAGATTGATGCACGTGGTGGG  
AACCTGAGCTAGTAGCCTTAGTAAAACACTTAAGTAAGATGTTCAAAGAAGAAAATGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202699 protein sequence  
Red=Cloning site Green=Tags(s)

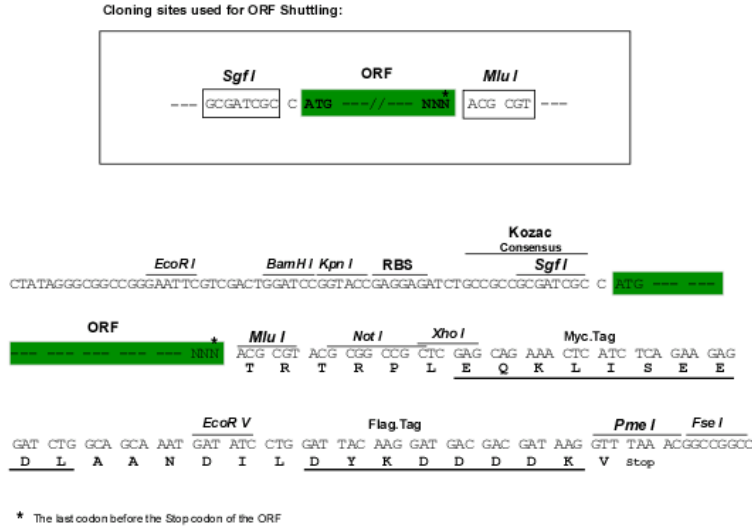
MEKTQETVQRILLEPYKYLLQLPGKQVRTKLSQAFNHWLKVPEDKLQIIIEVTEMLHNASLLIDDIEDNS  
 KLRRGFPVAHSIYGIPSVINSANYVYFLGLEKVLTDHPDAVKLFRQLLELHQGGGLDIYWRDNYTCPT  
 EEEYKAMVLQKTGGLFGLAVGLMQLFSDYKEDLKPLLNTLGLFFQIRDDYANLHKEYSENKSFCEDLTE  
 GKFSFPTIHAIWRSRPESTQVQNILRQRTEIDIKKYCVHYLEDVGSFEYTRNTLKELEAKAYKQIDARGG  
 NPVELVALVKHLSKMFKEENE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6145\\_f07.zip](https://cdn.origene.com/chromatograms/mk6145_f07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004837

**ORF Size:** 900 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_004837.4](#)

**RefSeq Size:** 2921 bp

**RefSeq ORF:** 903 bp

**Locus ID:** 9453

**Cytogenetics:** 1q42.3

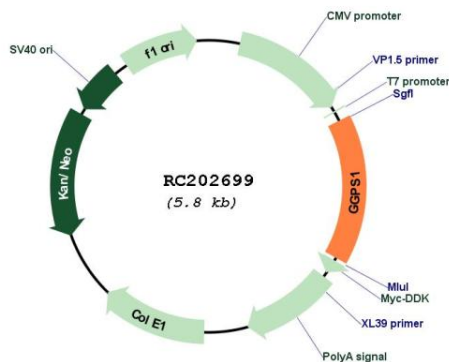
**Domains:** polyprenyl\_synt

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

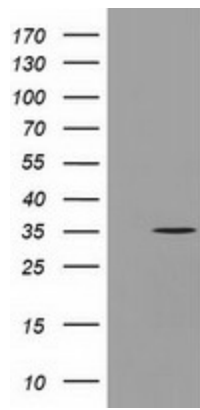
**MW:** 34.9 kDa

**Gene Summary:** This gene is a member of the prenyltransferase family and encodes a protein with geranylgeranyl diphosphate (GGPP) synthase activity. The enzyme catalyzes the synthesis of GGPP from farnesyl diphosphate and isopentenyl diphosphate. GGPP is an important molecule responsible for the C20-prenylation of proteins and for the regulation of a nuclear hormone receptor. Alternate transcriptional splice variants, both protein-coding and non-protein-coding, have been found for this gene. [provided by RefSeq, Sep 2010]

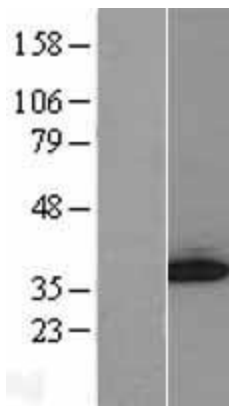
### Product images:



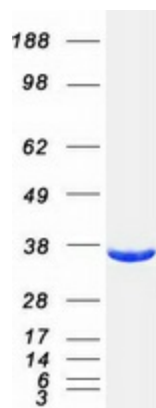
Circular map for RC202699



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GGPS1 (Cat# RC202699, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GGPS1 (Cat# [TA501731]). Positive lysates [LY401517] (100ug) and [LC401517] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401517]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202699 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GGPS1 protein (Cat# [TP302699]). The protein was produced from HEK293T cells transfected with GGPS1 cDNA clone (Cat# RC202699) using MegaTran 2.0 (Cat# [TT210002]).