

## Product datasheet for **RG217023**

### **PAPSS1 (NM\_005443) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PAPSS1 (NM_005443) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PAPSS1
Synonyms:	ATPSK1; PAPSS; SK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG217023 representing NM\_005443  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGATCCCCGGGAGCCTGTGCAAGAAAGTCAAACCTGAGCAATAACCGCAGAACTGGGGAATGCAGA  
 GAGCAACCAATGTACCTACCAAGCCCATCATGTGAGCAGGAACAAGAGAGGTCAGGTGGTGGGGACCAG  
 AGGTGGCTTTTCGTGGTTGCACAGTTTGGCTAACAGGCTTGTCTGGAGCGGAAAGACTACTGTGAGCATG  
 GCCTTGGAGGAGTACCTGGTTTGTATGGTATTCCATGCTACACTCTGGATGGTGAACAATTCGTCAGG  
 GTCTCAATAAAAAATCTTGGCTTTAGTCTGAAGACAGAGAAGAGAATGTTGACGCATCGCAGAAGTTGC  
 TAAACTGTTTGCAGATGCTGGCTTAGTGTGCATCACAAGTTTCATATCACCTTACACTCAGGATCGCAAC  
 AATGCAAGGCAAATTCATGAAGGTGCAAGTTTACCGTTTTTGAAGTATTTGTTGATGCTCCTCTGCATG  
 TTTGTGAACAGAGGGATGTCAAAGGACTCTACAAAAAGCCGGGCAGGAGAAATTAAGGTTTCACTGG  
 GATCGATTCTGAATATGAAAAGCCAGAGCCCCCTGAGTTGGTGTGAAAACAGACTCCTGTGATGTAAT  
 GACTGTGTCCAGCAAGTTGTGGAACCTCTACAGGAACGGGATATTGTACCTGTGGATGCATCTTATGAAG  
 TAAAAGAACTATATGTGCCAGAAAAATAAATTCATTTGGCAAAAACAGATGCGGAAACATTACCAGCACT  
 GAAAAATTAATAAAGTGGATATGCAGTGGGTGCAGGTTTTGGCAGAAGGTTGGGCAACCCCAATTGAATGGC  
 TTTATGAGAGAGAGGGAGTACTTGCAGTGCCTTCAATTTGATTGTCTTCTGGATGGAGGTGCATTAAC  
 TGTCAGTACCTATAGTCTGACTGCGACTCATGAAGATAAAGAGAGGCTGGACGGCTGTACAGCATTTCG  
 TCTGATGATGAGGGCCCGCTGTGGCCATTCTCGCAATCCAGAGTTTTTGGACACAGGAAAGAGGAG  
 CGCTGTCCAGACAGTGGGAACGACATGCAAGAACCACCCCTATATTAAGATGGTGAAGCAAGGAG  
 ATTTGGCTGATTGGAGAGATCTTCAAGTCTTGGATCGAGTTTTTGAATGATGGTCTTGTATCAGTATCG  
 TTTACTCCTACTGAGCTAAAGCAGAAATTTAAAGATATGAATGCTGATGCTGTCTTTGCATTTCAACTA  
 CGCAACCCAGTGCACAATGGACATGCCCTGTTAATGCAGGATACCCATAAGCAACTTCTAGAGAGGGCT  
 ACCGGCGCCCTGTCTCTCCTCCACCCTCTGGGTGGCTGGACAAAGGATGACGATGTTCTTTGATGTG  
 GCGTATGAAGCAGCATGCTGCAGTGTGGAGGAAGGAGTTCTGAATCCTGAGACGACAGTGGTGGCCATC  
 TTCCCATCTCCCATGATGTATGCTGGACCAACTGAGGTCCAGTGGCATTGCAGAGCACGGATGGTTGCAG  
 GAGCCAACTTTTACATTGTTGGACGAGACCCTGCTGGCATGCCTCATCCAGAAACAGGGAAGGATCTTTA  
 TGAGCCAAAGTCATGGTGCCAAAGTGTGACGATGGCCCTGGTTAATCACTTTGGAAATAGTTCCTTT  
 CGAGTTGCAGCTTACAACAAGAAAAAGAAGCGTATGGACTACTATGACTCTGAACACCATGAAGACTTTG  
 AATTTATTTTCAGGAACACGAATGCGCAAACCTGCTCGAGAAGGCCAGAAACCACCTGAAGTTTCATGGC  
 TCCAAGGCTTGGACCGTGTGACAGAATACTACAAATCCTTGGAGAAAGCT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG217023 representing NM\_005443  
 Red=Cloning site Green=Tags(s)

MEIPGSLCKVKLSNNAQNWGMQRATNVTYQAHVSRNKRQVVVTRGGFRGCTVWL TGLSGAGKTTVSM  
 ALEEYL VCHGIPCYTL DGDNI RQGLNKNL GFSPEDREENVRR IAEVAKL FADAGL VCITSF I SPYTQDRN  
 NARQIHEGASLPFF E VFDAPLHVCEQRDVKGL YKKARAGEIKGFTGIDSEYEKPEAPEL VLKTDSCDVN  
 DCVQQVV ELLQERDIPVDASYEVKEL YVPENK LHLAKTDAETLPALKINKVDMQWVQVLAEGWATPLNG  
 FMREREYLQCLHFDCLLDGGVINL SVPIVLTATHEDKERLDGCTAFALMYEGRRVAILRNPEFF EHRKEE  
 RCARQWGTTCKNHPYIKMVM EQDWL IGGDLQVLD R VY WNDGLDQYRL TPTELKQKFKDMNADAVFAFQL  
 RNPVHNGHALLMQDTHKQLLERGYRRPVLLLHPLGGWTKDDDVPLMWRM QHAAVLEEGV LNPETTVAI  
 FPSPMMYAGPTEVQWHCRARMVAGANFYIVGRDPAGMPHPETGKDL YEP SHGAKVLTMAPGLITL EIVPF  
 RVAAYNKKK RMDYYDSEHHDFEFISGTRMRKLAREGQKPP EGFMAPKAWTVL TEYYKSLEKA

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



ACCN: NM\_005443

ORF Size: 1872 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

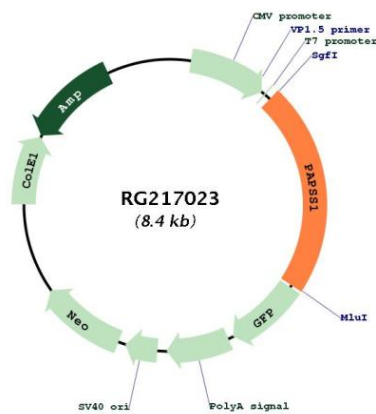
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_005443.5](#)

**RefSeq Size:** 2558 bp  
**RefSeq ORF:** 1875 bp  
**Locus ID:** 9061  
**UniProt ID:** [O43252](#)  
**Cytogenetics:** 4q25  
**Domains:** ATP-sulfurylase, APS\_kinase  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Metabolic pathways, Purine metabolism, Selenoamino acid metabolism, Sulfur metabolism  
**Gene Summary:** Three-prime-phosphoadenosine 5-prime-phosphosulfate (PAPS) is the sulfate donor cosubstrate for all sulfotransferase (SULT) enzymes (Xu et al., 2000 [PubMed 10679223]). SULTs catalyze the sulfate conjugation of many endogenous and exogenous compounds, including drugs and other xenobiotics. In humans, PAPS is synthesized from adenosine 5-prime triphosphate (ATP) and inorganic sulfate by 2 isoforms, PAPSS1 and PAPSS2 (MIM 603005).[supplied by OMIM, Mar 2008]

**Product images:**



Circular map for RG217023