

Product datasheet for **RG200551**

PAPSS2 (NM_004670) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAPSS2 (NM_004670) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PAPSS2
Synonyms:	ATPSK2; BCYM4; SK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG200551 representing NM_004670
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGGGGATCAAGAAGCAAAGACGGAGAACCAGCAGAAATCCACCAATGTAGTCTATCAGGCCACC
 ATGTGAGCAGGAATAAGAGAGGGCAAGTGGTTGGAACAAGGGGTGGGTTCCGAGGATGTACCGTGTGGCT
 AACAGGTCTCTCTGGTGTGAAAAACAACGATAAGTTTTGCCCTGGAGGAGTACCTTGTCTCCCATGCC
 ATCCCTTGTACTCCCTGGATGGGACAATGTCCGTATGGCCTTAACAGAAATCTCGATTCTCTCCTG
 GGGACAGAGAGGAAAATATCCGCCGGATTGCTGAGGTGGCTAAGCTGTTTGTGATGCTGGTCTGGTCTG
 CATTACCAGCTTTATTTCTCCATTCGAAAGGATCGTGAAGTACCCGAAAATACATGAATCAGCAGGG
 CTGCCATTTTAAATATTTGTAGATGCACCTCTAAATATTTGTAAAGCAGAGACGTAAGGCTCTCT
 ATAAAAGGGCCAGAGCTGGGAGATTAAGGATTTACAGTATTGATTCTGATTATGAGAAACCTGAAAC
 TCCTGAGCGTGTCTTAAACCAATTTGCCACAGTGAAGTACTGTGCCACAGGTAGTGAACCTCTG
 CAAGAGCAGAACATTGTACCCTATACTATAATCAAGATATCCACGAACTCTTTGTGCCGAAAACAAC
 TTGACCACGTCCGAGCTGAGGCTGAAACTCTCCCTTCATTATCAATTACTAAGCTGGATCTCCAGTGGGT
 CCAGGTTTTGAGCGAAGGCTGGGCCACTCCCTCAAAGTTTTGATGCGGGAGAAGGAGTACTTACAGGTT
 ATGCACCTTGACACCCTGCTAGATGATGGCGTATCAACATGAGCATCCCATTTGACTGCCCGTCTCTG
 CAGAGGATAAGACACGGCTGGAAGGGTGCAGCAAGTTTGTCTGGCACATGGTGGACGGAGGGTAGCTAT
 CTTACGAGACGCTGAATCTATGAACACAGAAAAGAGGAACGCTGTTCCCGTGTGGGGGACAACATGT
 ACAAACACCCCATATCAAAATGGTATGGAAGTGGGACTGGCTGGTGGTGGAGACCTTCAAGTGC
 TGGAGAAAATAAGATGGAATGATGGGCTGGACCAATACCGTCTGACACCTCTGGAGCTCAACAGAAATG
 TAAAGAAATGAATGCTGATGCGGTGTTTGCAATCCAGTTGCGCAATCCTGTCCACAATGGCCATGCCCTG
 TTGATGCAGGACACTCGCCGAGGCTCCTAGAGAGGGGCTACAAGCACCCGGTCTCCTACTACACCCTC
 TGGGCGGCTGGACCAAGGATGACGATGTGCCTCTAGACTGGCGGATGAAGCAGCACGCGGCTGTGCTCGA
 GGAAGGGTCTGGATCCCAAGTCAACCATTGTTGCCATCTTCCGTCTCCCATGTTATATGCTGGCCCC
 ACAGAGGTCCAGTGGCACTGCAGGTCCCGGATGATTGCGGGTCCCAATTTCTACATTGTTGGGGAGGGACC
 CTGCAGGAATGCCCCATCCTGAAACCAAGAAGGATCTGTATGAACCCACTCATGGGGCAAGGTCTTGAG
 CATGGCCCCTGGCCTCACCTCTGTGAAATCATCCATTCCGAGTGGCTGCCTACAACAAAGCCAAAAA
 GCCATGGACTTCTATGATCCAGCAAGGCACAATGAGTTTGACTTCATCTCAGGAAGTGAATGAGGAAGC
 TCGCCCGGAAGGAGAGAATCCCCAGATGGCTTCATGGCCCCAAAGCATGGAAGGCTCTGACAGATTA
 TTACAGGTCCTGGAGAAGAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG200551 representing NM_004670
 Red=Cloning site Green=Tags(s)

MSGIKKQKTENQQKSTNVVYQAHVSRNKRQVVGTRGGFRGCTVWLTGLSGAGKTTISFALEEYLVSHA
 IPCYSLDGDNRHGLNRNLGSPGDREENIRRIAEVAKLFADAGLVCITSFISPFKDRNARKIHESAG
 LPFFEIFVDAPLNICESRDVKGLYKRARAGEIKGFTGIDSDYEKTPETPERVLKTNLSTVSDCVHQVVLL
 QEQNIIVPYTIKDIHELFPENKLDHVRAEAETLPSLSITKLDLQWVQVLSGWATPLKGFMRKEYLQV
 MHFDTLLDDGVINMSIPIVLPVSAEDKTRLEGCSKFLAHGGRRVAILRDAEFYEHRKEERCSRVTGTC
 TKHPIKMMVMSGDWLVGGDLQVLEKIRWNDGLDQYRLTPELEKQCKEMNADAVFAFQLRNPVHNGHAL
 LMQDTRRRLLERGYKHPVLLHPLGGWTKDDVPLDWRMKQHAAVLEEGVLDPKSTIVAIIFPSPMLYAGP
 TEVQWHCRSRMIAGANFYIVGRDPAGMPHPETKKDLYEPHGGKVLSPMAPGLTSVEIIPFRVAAYNKAKK
 AMDFYDPAHNEFDIFSGTRMRKLAREGENPPDGFMAPKAWKVLTDYYSLEKN

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_004670

ORF Size: 1842 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 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.

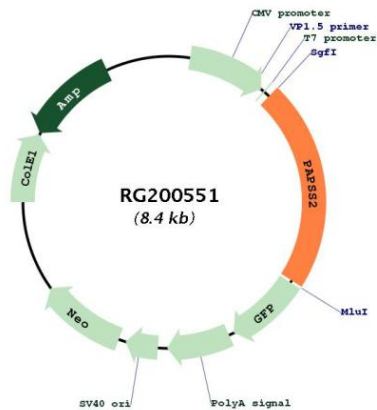
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_004670.4](#)

RefSeq Size:	3859 bp
RefSeq ORF:	1845 bp
Locus ID:	9060
UniProt ID:	O95340
Cytogenetics:	10q23.2-q23.31
Domains:	ATP-sulfurylase, APS_kinase
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Purine metabolism, Selenoamino acid metabolism, Sulfur metabolism
Gene Summary:	Sulfation is a common modification of endogenous (lipids, proteins, and carbohydrates) and exogenous (xenobiotics and drugs) compounds. In mammals, the sulfate source is 3'-phosphoadenosine 5'-phosphosulfate (PAPS), created from ATP and inorganic sulfate. Two different tissue isoforms encoded by different genes synthesize PAPS. This gene encodes one of the two PAPS synthetases. Defects in this gene cause the Pakistani type of spondyloepimetaphyseal dysplasia. Two alternatively spliced transcript variants that encode different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200551