

Product datasheet for **SC320301**

PAPSS2 (NM_004670) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAPSS2 (NM_004670) Human Untagged Clone
Tag:	Tag Free
Symbol:	PAPSS2
Synonyms:	ATPSK2; BCYM4; SK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_004670.3
GTCCGGCAGCCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCCGCCGCCGCCGCCGCCGTCCTG
CGTCCTTCGGTCTCTGCTCCCGGACCCGGGCTCCGCCGACGCCAGCCAGCATGTCGGGG
ATCAAGAAGCAAAGACGGAGAACCAGCAGAAAATCCACCAATGTAGTCTATCAGGCCAC
CATGTGAGCAGGAATAAGAGAGGGCAAGTGTTGGAACAAGGGTGGGTTCCGAGGATGT
ACCGTGTGGCTAACAGGTCTCTGCTGCTGAAAAACAACGATAAGTTTTGCCCTGGAG
GAGTACCTTGCTCCCATGCCATCCCTTGTTACTCCCTGGATGGGGACAATGTCCGTGAT
GGCCTTAACAGAAATCTCGGATTCTCCTGCGGACAGAGGAAAATATCCGCCGGATT
GCTGAGGTGGCTAAGCTGTTTGCTGATGCTGGTCTGGTCTGCATTACCAGCTTTATTTCT
CCATTCGCAAAGGATCGTGAGAATGCCCGCAAATACATGAATCAGCAGGGTGCATTC
TTTGAATATTTGTAGATGCACCTCTAAATATTTGTAAAGCAGAGACGTAAGGCTCT
TATAAAAGGGCCAGAGCTGGGGAGATTAAGGATTTACAGGATTTGATTCTGATTATGAG
AAACCTGAACTCCTGAGCGTGTGCTTAAACCAATTTGTCCACAGTGTGACTGTGTC
CACCAGGTAGTGGAACTTCTGCAAGAGCAGAACATTGTACCCTATACTATAATCAAGAT
ATCCACGAACTCTTTGTCCGAAAACAACCTTGACCACGTCGAGCTGAGGCTGAAACT
CTCCCTCATTATCAATTAAGCTGGATCTCCAGTGGGTCCAGTTTTGAGCGAAGGC
TGGGCCACTCCCTCAAAGTTTTCATGCGGGAGAAGGAGTACTTACAGGTATGCACTTT
GACACCCTGTAGATGATGGCGTATCAACATGAGCATCCCAATTTGACTGCCCGTCTCT
GCAGAGGATAAGACACGGCTGGAAGGGTGACAGCAAGTTTGTCTGGCACATGGTGGACGG
AGGGTAGCTATCTTACGAGACGTGAATTCTATGAACACAGAAAAGGAACGCTGTTCC
CGTGTGTTGGGGACAACATGTACAAAACACCCCATATCAAAATGGTATGAAAGTGGG
GACTGGCTGGTTGGTGGAGACCTTCCAGGTGCTGGAGAAAATAAGTGAATGATGGGCTG
GACCAATACCGTCTGACACCTCTGGAGCTCAAACAGAAAATGTAAGAAAATGAATGCTGAT
CGGGTGTGCTTCCAGTTGCGCAATCCTGTCACAATGGCCATGCCCTGTTGATGCAG
GACACTCGCCGCAGGCTCCTAGAGAGGGCTACAAGCACCCGGTCTCCTACTACACCT
CTGGGGCGCTGGACCAAGGATGACGATGTGCTCTAGACTGGCGGATGAAGCAGCACGG
GCTGTGCTCGAGGAAGGGTCTGGATCCCAAGTCAACCATTGTTGCCATCTTCCGTCT
CCCATGTTATATGCTGGCCCCACAGAGTCCAGTGGCACTGCAGGTCCCGGATGATTGCG
GGTGCCAAATTTCTACATTGTGGGAGGGACCCTGCAGGAATGCCCATCTGAAACCAAG
AAGGATCTGTATGAACCCACTCATGGGGCAAGGCTTTGAGCATGGCCCTGGCCTCACC
TCTGTGGAATCATTCCATTCCGAGTGGCTGCCTACAACAAGCCAAAAAAGCCATGGAC
TTCTATGATCCAGCAAGGCACAATGAGTTGACTTCATCTCAGGAACCGAATGAGGAAG
CTCGCCCGGGAAGGAGAGAATCCCCAGATGGTTTCATGGCCCCAAGCATGGAAGGTC
CTGACAGATTATTACAGGTCCCTGGAGAAGAACTAAGCCTTTGGCTCCAGAGTTCTTTC
TGAAGTGCTCTTTGATTACCTTTTCTATTTTTATGATTAGATGCTTTGTATTAAATGCT
TCTCAATGATGCATTTTAATCTTTATAATGAAGTAAAAGTTGTGTCTATAATAAAAAA
AAATATATATATACACACACACATATACATACAAAGTCAAACCTGAAGACCAAATCTTA
GCAGGTAAGCAATATTTATACATTTTATAAATAAAATAGCTCTATGATTTTCTAC
TGCACCTGAGCAGGCAGGTCCCAGATTTTCTAAGGCTTTGTTGACCATGTGTCTAGTTA
CTTGCTGAAAAGTGAATATATTTTCCAGCATGTCTTGACAACTGTACTTTCCAATGTC
ATTTATCAGTTGTAATATATCAGATTGTGCTCTTCTGTACATTGACAAAAAAA
AAAAAAAAAAAAAA

Restriction Sites: Please inquire
ACCN: NM_004670

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 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: [NM_004670.3](#), [NP_004661.2](#)

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]
Transcript Variant: This variant (1) represents the more frequently occurring transcript. It encodes isoform a, which has also been named PAPS synthase 2a.