

## Product datasheet for **RC200551**

### **PAPSS2 (NM\_004670) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PAPSS2 (NM_004670) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAPSS2
Synonyms:	ATPSK2; BCYM4; SK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC200551 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCGGGGATCAAGAAGCAAAGACGGAGAACCAGCAGAAATCCACCAATGTAGTCTATCAGGCCACC  
 ATGTGAGCAGGAATAAGAGAGGGCAAGTGGTTGGAACAAGGGGTGGGTTCCGAGGATGTACCGTGTGGCT  
 AACAGGTCTCTCTGGTGTGAAAAACAACGATAAGTTTTGCCCTGGAGGAGTACCTTGTCTCCCATGCC  
 ATCCCTTGTACTCCCTGGATGGGACAATGTCCGTATGGCCTTAACAGAAATCTCGATTCTCTCCTG  
 GGGACAGAGAGGAAAATATCCGCCGGATTGCTGAGGTGGCTAAGCTGTTTGTGTATGCTGGTCTGGTCTG  
 CATTACCAGCTTTATTTCTCATTTCGAAAGGATCGTGAAGTACCCGAAAATACATGAATCAGCAGGG  
 CTGCCATTTTGAATATTTGTAGATGCACCTCTAAATATTTGTAAAGCAGAGACGTAAGGCTCTCT  
 ATAAAAGGGCCAGAGCTGGGAGATTAAGGATTTACAGTATTGATTCTGATTATGAGAAACCTGAAAC  
 TCCTGAGCGTGTCTTAAACCAATTTGCCACAGTGAAGTACTGTGCCACAGGTAGTGAACCTCTG  
 CAAGAGCAGAACATTGTACCCTATACTATAATCAAGATATCCACGAACTCTTTGTGCCGAAAACAAC  
 TTGACCACGTCCGAGCTGAGGCTGAAACTCTCCCTTCAATTACTAAGCTGGATCTCCAGTGGGT  
 CCAGGTTTTGAGCGAAGGCTGGGCCACTCCCTCAAAGTTTTCATGCGGGAGAAGGAGTACTTACAGGTT  
 ATGCACCTTGACACCCTGCTAGATGATGGCGTATCAACATGAGCATCCCCATTGTACTGCCGCTCTCTG  
 CAGAGGATAAGACACGGCTGGAAGGGTGCAGCAAGTTTGTCTGGCACATGGTGGACGGAGGGTAGCTAT  
 CTTACGAGACGCTGAATCTATGAACACAGAAAAGAGGAACGCTGTTCCCGTGTGGGGACAACATGT  
 ACAAACACCCCCATATCAAAATGGTGTGAAAGTGGGACTGGCTGGTGGTGGAGACCTCAGGTGC  
 TGGAGAAAATAAGATGGAATGATGGCTGGACCAATACCGTCTGACACCTCTGGAGCTCAAACAGAAATG  
 TAAAGAAATGAATGCTGATGCGGTGTTTGCAATCCAGTTGCGCAATCCTGTCCACATGGCCATGCCCTG  
 TTGATGCAGGACACTCGCCGAGGCTCCTAGAGAGGGGCTACAAGCACCCGGTCTCCTACTACACCCTC  
 TGGGCGGCTGGACCAAGGATGACGATGTGCTCTAGACTGGCGGATGAAGCAGCACGCGGCTGTGCTCGA  
 GGAAGGGTCTGGATCCCAAGTCAACCATTGTTGCCATCTTCCGTCTCCCATGTTATATGCTGGCCCC  
 ACAGAGGTCCAGTGGCACTGCAGGTCCCGGATGATTGCGGGTCCCAATTTCTACATTGTGGGGAGGGACC  
 CTGCAGGAATGCCCCATCCTGAAACCAAGAAGGATCTGTATGAACCCACTCATGGGGCAAGGTCTTGAG  
 CATGGCCCCTGGCTCACCTCTGTGAAATCATCCATTCCGAGTGGCTGCCTACAACAAAGCCAAAAA  
 GCCATGGACTTCTATGATCCAGCAAGGCACAATGAGTTTGACTTCATCTCAGGAAGTGAATGAGGAAGC  
 TCGCCCGGAAGGAGAGAATCCCCAGATGGCTTCATGGCCCCAAAGCATGGAAGTCTGACAGATTA  
 TTACAGGTCCCTGGAGAAGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

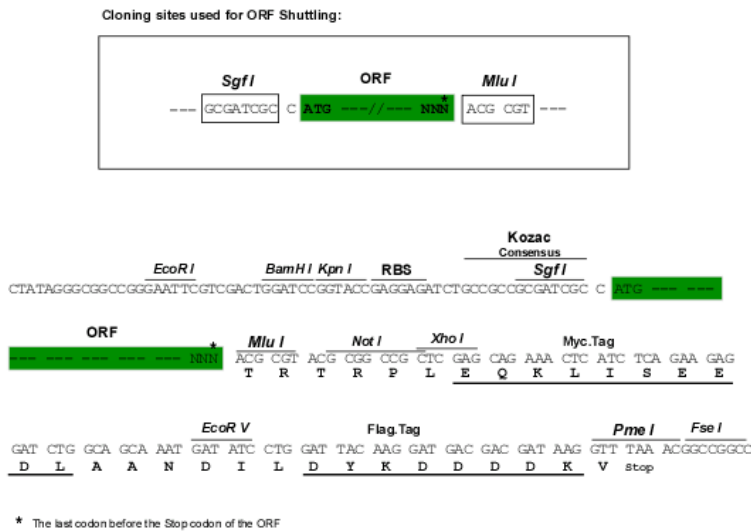
**Protein Sequence:**

>RC200551 protein sequence  
 Red=Cloning site Green=Tags(s)

MSGIKKQK TENQKSTNVVYQAHVSRNKRQVVGTRGGFRGCTVWL TGLSGAGKTTISF ALEEYLVSHA  
 IPCYSLDGDNRHGLNRNLGFS PGDREENIRRIAEVAKLFADAGLVCITSFISPF AKDRENARKIHESAG  
 LPFFEIFVDAPLNICESRDVKGLYKRARAGEIKGFTGIDSDYEKPEPPERVLKTNLSTVSDCVHQVVELL  
 QEQNIVPYTIIKDIHELFPENKLDHVRAEAETLPSLSITKLDLQWVQV LSEGWATPLKGFMRKEYLQV  
 MHFDTLLDDGVINMSIPIVLPVSAEDKTRLEGCSKFLAHGGRRVAILRDAEFYEHRKEERSRVWGTTCT  
 TKHPHIKVMESGDWLVGGDLQVLEKIRWNDGLDQYRLTPLELKQCKEMNADAVFAFQLRNPVHNGHAL  
 LMQDTRRRLLERGYKHPVLLHPLGGWTKDDDVPLDWRMKQHAAVLEEGVLPKSTIVAIFFSPMLYAGP  
 TEVQWHCRSRMIAGANFYIVGRDPAGMPHPETKKDLYEPHGGKVL SMAPGLTSVEIIPFRVAAYNKAKK  
 AMDFYDPAHNEFD FISGTRMRKLAREGENPPDGFMAPKAWKVL TDYYRSLEKN

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6418\\_c11.zip](https://cdn.origene.com/chromatograms/mk6418_c11.zip)  
 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

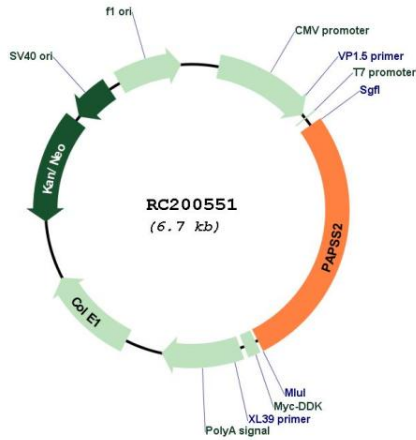
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

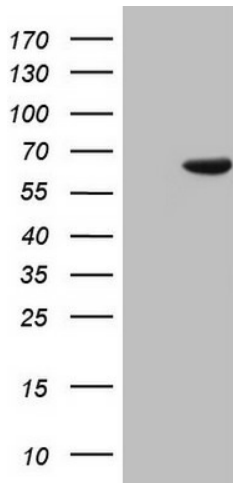
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_004670.4</a>
<b>RefSeq Size:</b>	3859 bp
<b>RefSeq ORF:</b>	1845 bp
<b>Locus ID:</b>	9060
<b>UniProt ID:</b>	<a href="#">O95340</a>
<b>Cytogenetics:</b>	10q23.2-q23.31
<b>Domains:</b>	ATP-sulfurylase, APS_kinase
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Purine metabolism, Selenoamino acid metabolism, Sulfur metabolism
<b>MW:</b>	69.5 kDa
<b>Gene Summary:</b>	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]

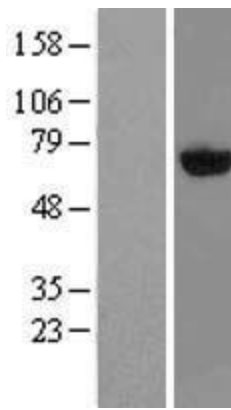
Product images:



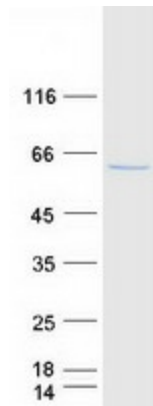
Circular map for RC200551



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PAPSS2 (Cat# RC200551, 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-PAPSS2 (Cat# [TA807109]). Positive lysates [LY417837] (100ug) and [LC417837] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417837]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200551 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PAPSS2 protein (Cat# [TP300551]). The protein was produced from HEK293T cells transfected with PAPSS2 cDNA clone (Cat# RC200551) using MegaTran 2.0 (Cat# [TT210002]).