

Product datasheet for **MR225151**

Papss2 (NM_011864) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Papss2 (NM_011864) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Papss2
Synonyms:	1810018P12Rik; AI159688; Atpsk2; AtpsU2; bm; Sk2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225151 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGCAAATTTCAAATGAACCATAAAAGAGACCAGCAAAAATCCACCAATGTGGTCTACCAGGCC
 ATCATGTGAGCAGGAACAAGAGAGGACAAGTGGTTGGAACCAGGGGAGGATTCAGGATGTACCGTGTG
 GCTAACAGGTCTCTCTGGTGTGGGAAAACAACCATAGCTTTGCTTTGGAAGAGTACCTTGTATCTCAC
 GCCATCCCATGTTACTCTCTGGATGGGACAATGTCCGTCATGGCCTTAATAAGAACCTGGGATTCTCTG
 CGGGGACCGAGAAGAGAATATCCGCCGATCGCGGAGGTGGCCAGGCTCTTTGCCGACGCCGCCCTGGT
 TTGCATCACCAGCTTTATCTCTCTTTTCAAAGGATCGTGAGAATGCCGAAAAATCCACGAATCAGCA
 GGACTCCCATTCTTTGAGATCTTTGTAGATGCGCCTTTAAATATCTGTGAAAGCCGAGACGTAAGGAC
 TCTACAAACGAGCCCGAGCAGGAGAGATTAAGGGTTTACAGGCATCGATTCTGACTATGAGAACTGA
 AACTCCAGAGTGTGTGCTGAAGACCAACCTGTCTTCAGTAAGCGACTGTGTGCAACAGGTGGTGAACCT
 TTGCAGGAGCAGAACATTGTACCCACACCACCATCAAAGGCATCCACGAACTCTTTGTGCCAGAAAACA
 AAGTCGATCAAATCCGAGCTGAGGCAGAGACTCTCCCATCACTACCAATTACCAAGCTGGATCTGCAGTG
 GGTGCAGATTCTGAGTGAAGGCTGGGCCACTCCCTCAAAGGCTTTATGCGGGAGAAGGAGTACTTGCAA
 ACTCTACACTTCGACACTCTACTGGACGGCGTGGTTCCCGTGATGGAGTCATCAACATGAGTATCCCA
 TTGTATTGCCCGTTTCTGCGGATGACAAGGCACGGCTCGAAGGGTGCAGCAAATTTGCCCTGATGTACGA
 AGGTCGGAGGGTCTGCTATTACAGGACCCTGAATTCTATGAGCATAGGAAAGAGGAGCGCTGTTCTCGT
 GTGTGGGAACAGCCACTGCAAAGCACCCTCATCAAATGGTGTGAAAGTGGGACTGGCTTGTGTTG
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 GGAGCTCAAACAGAAGTGTAAAGACATGAATGCTGATGCCGTGTTGCATTCCAGTTGCGCAATCCTGTC
 CACAATGGTCATGCCCTCTGATGCAGGACACCCGCCGAGGCTCCTGGAGAGGGTTACAAGCACCCAG
 TCCTCCTGCTCCACCCTTTGGGGCTGGACCAAGGACGATGACGTACCTCTGGAATGGAGGATGAAACA
 GCATGCAGCTGTACTGGAGGAAAGGCTCCTGGATCCCAAGTCAACTATTGTTGCCATCTTCCATCTCT
 ATGTTATATGCTGGTCCACAGAGGTCCAGTGGCATTGCAGATGCCGGATGATTGCAGGAGCCAATTTCT
 ACATTGTGGGTAGGATCCCGCAGGAATGCCCATCCTGAGACAAAGAAAGACCTATATGAACCCACCCA
 CGGGGCAAGGTCTTGTAGTATGGCCCTGGCTTACCTCTGTGAAATAATTCCGTTCCGAGTGGCTGCC
 TACAATAAAATAAAAAGCCATGGACTTTTATGATCCAGCAAGGCACGAGGAGTTTACTTTCATCTCAG
 GAACTCGCATGAGGAAGCTCGCCCGGAAGGAGAAGATCCCCAGATGGCTTCATGGCCCGAAAGCGTG
 GAAAGTGTGACAGATTACTACAGGTCTCTGGAGAAGACCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

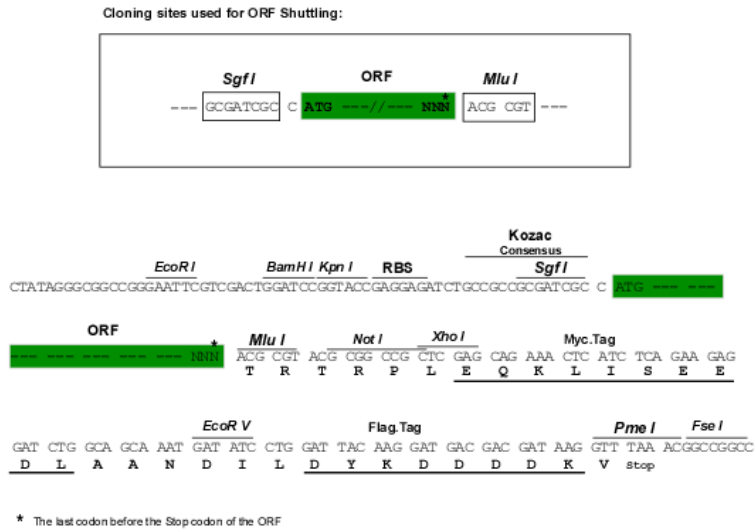
>MR225151 protein sequence
 Red=Cloning site Green=Tags(s)

MSANFKMNHKRDQKSTNVVYQAHHVSRNKRQVVVGTGGFRGCTVWLTGLSGAGKTTISFALLEEYLVSH
 AIPCYSLDGDNVRHGLNKNLGFSAAGREENIRRIAEVARLFADAGLVCITSFISPFKADRENARKIHESA
 GLPFFEIFVDAPLNICESRDVKGLYKRARAGEIKGFTGIDSDYEKPEPTECVLKTNLSSVSDCVQQVVEL
 LQEQNIVPHTTIKGIHELFPENKVDQIRAEATLPSLPITKLDLQWVQILSEGWATPLKGFMRKEYLQ
 TLHFDTLLDGVVPRDGVINMSIPIVLPVSADDKARLEGCSKFALMYEGRRVALLQDPEFYEHKREERCSR
 VWGTATAKHPHIKVMESGDWLVGGDLQVLERIRWDDGLDQYRLTPELEKQKCKDMNADAVFAFQLRNPV
 HNGHALLMQDTRRRLLERGYKHPVLLLHPLGGWTKDDVPLEWRMKQHAAVLEERVLDPKSTIVAIFFSP
 MLYAGPTEVQWHCRMIAGANFYIVGRDPAGMPHPETKDLYEPTHGGKVLSPAPGLTSVEIIPFRVAA
 YNKIKKAMDFYDPAHEEFDFISGTRMRKLAREGEDPPDGFMAPKAWKVLTDYYSLEKTN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_011864

ORF Size: 1866 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.

RefSeq: [NM_011864.2](#)

RefSeq Size: 3635 bp

RefSeq ORF: 1866 bp

Locus ID: 23972

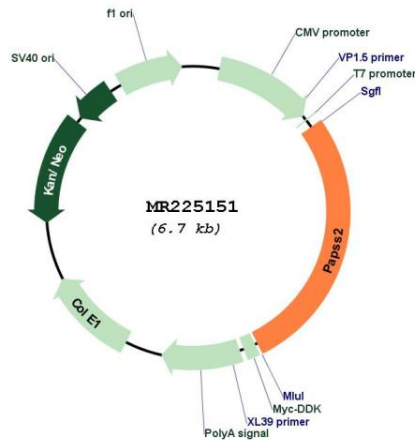
UniProt ID: [O88428](#)

Cytogenetics: 19 27.46 cM

MW: 70.4 kDa

Gene Summary: Bifunctional enzyme with both ATP sulfurylase and APS kinase activity, which mediates two steps in the sulfate activation pathway. The first step is the transfer of a sulfate group to ATP to yield adenosine 5'-phosphosulfate (APS), and the second step is the transfer of a phosphate group from ATP to APS yielding 3'-phosphoadenylylsulfate (PAPS: activated sulfate donor used by sulfotransferase). In mammals, PAPS is the sole source of sulfate; APS appears to be only an intermediate in the sulfate-activation pathway. May have an important role in skeletogenesis during postnatal growth.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225151