

## Product datasheet for **MG227313**

### Psap (NM\_011179) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Psap (NM_011179) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Psap
Synonyms:	AI037048; SGP; SGP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227313 representing NM\_011179  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTACGCCCTCGCCCTCTTCGCCAGCCTTCTGGCCACCCTCTGACCAGCCCTGTCCAAGACCCGAAGA  
 CATGCTCTGGGGCTCAGCAGTCTGTGCAGAGATGTGAAGACGCGGGTGGACTGTGGGGCGTGAAGCA  
 CTGCCAGCAGATGGTCTGGAGCAAGCCACAGCGAAATCCCTTCCTTGGACATATGCAAACTGTTGTC  
 ACCGAAGCTGGAACTTCTGCTGAAAGATAATGCTACGCAGGAGGAGATCCTTCATTACCTGGAGAAGACCT  
 GTGAGTGGATTATGACTCCAGCCTGTCCGGCTCGTGAAGGAGGTGGTTGACTCTTACCTGCCTGTCAT  
 CCTGGACATGATTAAGGGCGAGATGAGCAACCCTGGGGAAGTGTGCTCTGCGCTCAACCTCTGCCAGTCC  
 CTTCAGGAGTACTTGGCCGAGCAAAACCAGAAACAGCTTGAGTCCAACAAGATCCCGAGGTGGACATGG  
 CCCGTGTGGTTGCCCCCTCATGTCCAACATCCCTCTCCTGCTGTACCCTCAGGATCACCCCGCAGCCA  
 GCCCAACCTAAGGCTAACGAGGACGTCTGCCAGGACTGTATGAAGCTGGTGTCTGATGTCCAGACTGCT  
 GTGAAGACCAACTCCAGCTTTATCCAGGGCTTCGTGGACCACGTGAAGGAGGATTGTGACCGCTTGGGGC  
 CAGGCGTGTCTGACATATGCAAGAACTACGTGGACCAGTATTCCGAGGTCTGTGTCCAGATGTTGATGCA  
 CATGGATCAGCAACCAAGGAAATCTGTGTGCTGGCTGGCTTCTGTAATGAGGTCAAGAGAGTGCCAATG  
 AAGACTCTGGTCCCTGCCACCGAGACCATTAAGAACATCCTCCCTGCCCTGGAGATGATGGACCCCTATG  
 AGCAGAATCTGGTCCAGGCCACAATGTGATTTATGCCAGACCTGTGAGTTTGTGATGAATAAGTTTTTC  
 TGAGCTGATTGTCAATAATGCCACTGAGGAGCTCCTAGTTAAAGGTTTGGACAACGCATGCCACTGCTC  
 CCCGATCTGCCAGAACAAGTCCAGGAGGTGGTGGGAACATTTGGCCCTCCCTGTTGGACATCTTTA  
 TCCATGAGGTA AACCCAGCTCTCTGTGCGGTGTGATCGGCCCTCTGTGCTGCCCGCCGGAGTTGGTGGA  
 GGCACTTGAGCAGCCTGCGCCAGCCATTGTATCTGCACTGCTCAAAGAGCCACACCGCCAAAGCAGCCC  
 GCACAGCCCAAGCAGTCCGCATTGCCCGCCATGTGCCTCCTCAGAAGAATGGTGGTCTGTGAGGTGT  
 GCAAGAACTGGTCTCTATTTGGAACATAACCTGGAGAAAAACAGCACCAAGGAGGAAATCCTGGCCGC  
 ACTTGAGAAGGGCTGCAGCTTCTGCCAGACCCTTACCAGAAGCAGTGGATGACTTTGTGGCTGAGTAT  
 GAGCCCTTGCTATTGGAGATCCTCGTGAAGTGTGGATCCTGGATTTGTGTGCTCGAAAATTGGAGTTT  
 GCCCTTCTGCCTATAAGCTGCTGCTGGGAACCGAGAAGTGTGCTGGGCCCTAGCTACTGGTGTGAGAA  
 CATGGAGACTGCCGCCGATGCAATGCTGTCGATCATTGCAAACGCCATGTGTGGAAC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>MG227313 representing NM\_011179  
 Red=Cloning site Green=Tags(s)

MYALALFASLLATALTSPVQDPKTCSSGSAVLCRDVKTAVDCGAVKHCQQMVWSKPTAKSLPCDICKTVV  
 TEAGNLLKDNATQEEILHYLEKTCEWIHSSLSASCKEVVDSYLPVILDMIKGEMSNPGEVCSALNLCQS  
 LQEYLAEQNQKQLESNKIPEVDMARVVAFMNSIPLLLYPQDHPRSQPQPKANEDVCQDCMKLVSDVQTA  
 VKTNSSFIQGFVDHVKEDCDRLGPGVSDICKNYVDQYSEVCVQMLMHMDQQPKEICVLAGFCNEVKRVP  
 KTLVPAETETIKNILPALEMMDPYEQLVQAHNVILCQTCQFVMNKFSELI VNNATEELLVKGLSNACALL  
 PDPARTKCQEVVGTGFPSSLDFIHEVNPSSLCGVI GLCAARPELVEALEQPAPAIVSALLKEPTPPKQP  
 AQPQKSALPAHVPPQKNGGFCEVCKKLVLYLEHNLEKNSTKEEILAALEKGSFLPDYPYQKQDDFVAEY  
 EPLLEILVEVMDPGFVCSKIGVCP SAYKLLLGTEKCVWGPSYWCQNMETAARCAVNDHCKRHVWN

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

Sgfl-MluI



<b>ACCN:</b>	NM_011179
<b>ORF Size:</b>	1671 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>RefSeq:</b>	<u><a href="#">NM_011179.3</a></u> , <u><a href="#">NP_035309.3</a></u>
<b>RefSeq Size:</b>	2676 bp
<b>RefSeq ORF:</b>	1674 bp
<b>Locus ID:</b>	19156
<b>UniProt ID:</b>	<u><a href="#">Q61207</a></u>
<b>Cytogenetics:</b>	10 30.02 cM

**Gene Summary:**

This gene encodes a multifunctional glycoprotein that plays a role in the intracellular metabolism of various sphingolipids or secreted into the plasma, milk or cerebrospinal fluid. The encoded protein undergoes proteolytic processing to generate four different polypeptides known as saposin A, B, C or D, that are required for the hydrolysis of certain sphingolipids by lysosomal hydrolases. Alternately, the encoded protein is secreted into body fluids where it exhibits neurotrophic and myelinotrophic activities. A complete lack of the encoded protein is fatal to mice either at the neonatal stage or within the first month due to severe leukodystrophy and sphingolipid accumulation. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar processing to generate the mature saposins. [provided by RefSeq, Sep 2015]