

Product datasheet for **SC118405**

PSAP (NM_002778) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PSAP (NM_002778) Human Untagged Clone
Tag:	Tag Free
Symbol:	PSAP
Synonyms:	GLBA; SAP1; SAP2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene ORF within SC118405 sequence for NM_002778 edited (data generated by NextGen Sequencing)

```

ATGTACGCCCTCTTCTCCTGGCCAGCCTCTGGGCGCGGCTCTAGCCGGCCCGGTCTT
GGACTGAAAGAATGCACCAGGGGCTCGGCAGTGTGGTGCCAGAATGTGAAGACGGCGTCC
GACTGCGGGGCAGTGAAGCACTGCCTGCAGACCGTTTGGAAACAAGCCAACAGTGAATCC
CTTCCCTGCGACATATGCAAAGACGTTTGCACCCGAGCTGGTGATATGCTGAAGGACAAT
GCCACTGAGGAGAGACTCTTGTACTTGGAGAAGACCTGTGACTGGCTCCGAAACCG
AACATGTCTGCTTCATGCAAGGAGATAGTGGACTCCTACCTCCCTGTCATCCTGGACATC
ATTAAAGGAGAAAATGAGCCGTCCTGGGGAGGTGTGCTCTGCTCTCAACCTCTGCGAGTCT
CTCCAGAAGCACCTAGCAGAGCTGAATCACCAGAAGCAGCTGGAGTCCAATAAGATCCCA
GAGCTGGACATGACTGAGGTGGTGGCCCCCTTCATGGCCAACATCCCTCTCCTCTCTAC
CCTCAGGACGGCCCCGAGCAAGCCCCAGCCAAAGGATAATGGGGACGTTTGCCAGGAC
TGCATTAGATGGTGACTGACATCCAGACTGCTGTACGGACCAACTCCACCTTTGTCCAG
GCCTTGGTGAACATGTCAAGGAGGAGTGTGACCGCCTGGGCCCTGGCATGGCCGACATA
TGCAAGAACTATATCAGCCAGTATTCTGAAATTGCTATCCAGATGATGATGCACATGCAA
CCCAAGGAGATCTGTGCGCTGGTTGGGTTCTGTGATGAGGTGAAAGAGATGCCCATGCGAG
ACTCTGGTCCCGCCAAAGTGGCCTCCAAGAATGTCATCCCTGCCCTGGAAGTGGTGGAG
CCCATTAAAGAAGCACGAGGTCCCAGCAAAGTCTGATGTTTACTGTGAGGTGTGTAATTC
CTGGTGAAGGAGGTGACCAAGCTGATTGACAACAACAAGACTGAGAAAGAAAATACTCGAC
GCTTTTGACAAAATGTGCTCGAAGCTGCCGAAGTCCCTGTCGGAAGAGTGCCAGGAGGTG
GTGGACACGTACGGCAGCTCCATCCTGTCCATCCTGCTGGAGGAGGTGAGCCCTGAGCTG
GTGTGCAGCATGCTGCACCTCTGCTCTGGCACGCGGCTGCCTGCACTGACCGTTACAGTG
ACTCAGCCAAAGGACGGTGGCTTCTGCGAAGTGTGCAAGAAGCTGGTGGGTTATTTGGAT
CGCAACCTGGAGAAAACAGCACCAAGCAGGAGATCCTGGCTGCTCTTGAGAAAGCTGC
AGCTTCTGCCAGACCCTTACCAGAAGCAGTGTGATCAGTTTGTGGCAGAGTACGAGCCC
GTGCTGATCGAGATCCTGGTGGAGGTGATGGATCCTTCTCGTGTGCTTAAAAATTGGA
GCCTGCCCTCGGCCATAAGCCCTTGTGGAACTGAGAAGTGTATATGGGGCCCAAGC
TACTGGTGCCAGAACACAGAGACAGCAGCCAGTGAATGCTGTGCGAGCATTGCAAACGC
CATGTGTGGAAGTAG
    
```

Clone variation with respect to NM_002778.2

5' Read Nucleotide Sequence:

```

>OriGene 5' read for NM_002778 unedited
TGTTACCATATTTGTATACGACTCACTATTAGGGCGGCCGATTGGCAGGAGGCTGC
GGAGTCAGACGGCGCTATGTACGCCCTCTTCTCCTGGCCAGCCTCCTGGGCGCGGCTCT
AGCCGGCCCGGTCTTGGACTGAAAGAATGCACCAGGGGCTCGGCAGTGTGGTGCCAGAA
TGTGAAGACGGCGTCCGACTGCGGGCAGTGAAGCACTGCCTGCAGACCGTTTGGAAACA
GCCAACAGTGAATCCCTTCCCTGCGACATATGCAAAGACGTTGTCACCCGAGCTGGTGA
TATGCTGAAGGACAATGCCACTGAGGAGGAGATCCTTGTACTTGGAGAAGACCTGTGA
CTGGCTTCCGAAACCGAACATGTCTGCTTCATGCAAGGAGATAGTGGACTCCTACCTCCC
TGTATCCTGGACATCATTAAAGGAGAAAATGAGCCGTCCTGGGGAGGTGTGCTCTGCTCT
CAACCTCTGCGAGTCTCTCCAGAAGCACCTAGCAGAGCTGAATCACCAGAAGCAGCTGGA
GTCCAATAAGATCCCAGAGCTGGACATGACTGAGGTGGTGGCCCCCTTCATGGCCAACAT
CCCTCTCCTCCTCTACCCTCAGGACGGCCCCCGCAGCAAGCCCCAGCCAAAGGATAATGG
GGACGTTTGCCAGGACTGCATTCAGATGGTACTGACATCCAGACTGCTGTACGGACCAA
CTCCACCTTTGTCCAGGCCTTGGTGAACATGTCAAGGAGGAGTGTGACCGCCTGGGCC
TGGCATGGCCGACATATGCAAGAACTATATCAGCCAGTATTCTGAAATTGCTATCCAGAT
GATGATGCACATGCAACCCAGGNAGATCTGTGCGCCTGGTTGGGTTCTGTGATGAAGTGA
AAGAAGAGCCCATGCAAA
    
```

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002778 unedited CCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTGGCTAACAGAATTTTATTGTTAAATC TCACAGAACTTTAGTGCAAAACAAAAATCACGAAGTCCATTTAATAGCAACTTCATGTC CTGCTGGCTTTGCTTGTCTCCTGGCAACCAGAAAGTGGACAGAAGCGTGGGTGCCCAA GTGGGCCACAGACAGCTTCCAACCCACACCCAGCATCCAATCCACACCCAGCAGACC CTTCGGCATGCCGCCCTTACCAGGAAGCCAGAGGCTAGGAGCTCGCCATCCATATTTA TTTGAAAAGGTCAAAGGAGCATCTATGAGACAAGGGAGGGTGCAGGCTGAAGCAGCGC CTCAACAGCCAGGGACATGTAGGCAACACGAGCAGGCACAGCGCGCCACCACTGTCCAC ACGCTCACACAAGCCAGGCCCGCAGGGCTTCGGAGAGCTAGCAGTTACATTCAGGCAG ATGGCCCTCTTCCACCCAAACCCACAGAACCCCAAACAAGGCATCACCAGGAAAGACAC GGGAAAGCCAAATCACAGTTGAACCAGGGACAGAGAACCCTTGCCCACTGATGTCCCAA GCCACCAGCAGCTGCTTCAAATCCCTATGCTATTACAGTGGGAATTACATCATTTAAAA AGCCTGATTATCCAGGCTTCTAATCTTCATATAAACTGCCTTTGNTTTGCTGCTTTG NTCAACTGAGAGGCCANGAAAGCGGGGAGGGTCCCTGATCANGGCAGGAGGCCACCTC AGAAGCCAGGCCACCAGTTGCCAGCCCATGTCAAGGCCTAGAACAAGGCCTAACCAA GAGGTTGGATGGCTCAGTCAGGAAACTGTGGTTATGTCAGCAGAGCTTTTCTCTCTTCA GCAGCGCCATGCAGGGCAGCTAAAGAACTCCATGCTCACATCCATTTACAAGAAAGGGG CCTGACACCTTGTTCAGGGCTGGGGCTCCTGTGAACAAAATTAAT
Restriction Sites:	NotI-NotI
ACCN:	NM_002778
Insert Size:	3110 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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:	<u>NM_002778.1</u> , <u>NP_002769.1</u>
RefSeq Size:	2767 bp
RefSeq ORF:	1575 bp
Locus ID:	5660
UniProt ID:	<u>P07602</u>
Cytogenetics:	10q22.1
Domains:	SAPA, SapB_1, SapB_2, SAPB

Protein Families: Druggable Genome

Protein Pathways: Lysosome

Gene Summary: This gene encodes a highly conserved preproprotein that is proteolytically processed to generate four main cleavage products including saposins A, B, C, and D. Each domain of the precursor protein is approximately 80 amino acid residues long with nearly identical placement of cysteine residues and glycosylation sites. Saposins A-D localize primarily to the lysosomal compartment where they facilitate the catabolism of glycosphingolipids with short oligosaccharide groups. The precursor protein exists both as a secretory protein and as an integral membrane protein and has neurotrophic activities. Mutations in this gene have been associated with Gaucher disease and metachromatic leukodystrophy. Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed. [provided by RefSeq, Feb 2016]
Transcript Variant: This variant (1) lacks an exon in the coding region, compared to variant 2, resulting in a shorter protein (isoform a), compared to isoform b.