

Product datasheet for **RC213049**

PSAP (NM_001042466) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PSAP (NM_001042466) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PSAP
Synonyms:	GLBA; SAP1; SAP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC213049 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTACGCCCTCTTCTCCTGGCCAGCCTCTGGCGCGGCTCTAGCCGGCCCGTCTTGGACTGAAAG
 AATGCACCAGGGCTCGGCAGTGTGGTCCAGAATGTGAAGACGGCGTCCGACTGCGGGGCAAGTGAAGCA
 CTGCCTGCAGACCGTTTGGAAACAAGCCAACAGTAAATCCCTTCCCTGCGACATATGCAAAGACGTTGTC
 ACCGCAGCTGGTATGCTGAAGGACAATGCCACTGAGGAGGAGATCCTTGTACTTGGAGAAGACCT
 GTGACTGGCTCCGAAACCGAACATGTCTGCTTCAAGGAGATAGTGGACTCCTACCTCCCTGTCAT
 CCTGGACATCATTAAAGGAGAAATGAGCCGCTCTGGGGAGGTGTGCTCTGCTCTCAACCTCTGCGAGTCT
 CTCCAGAAGCACCTAGCAGAGCTGAATCACCAGAAGCAGCTGGAGTCCAATAAGATCCCAGAGCTGGACA
 TGACTGAGGTGGTGGCCCCCTTCATGGCCAACATCCCTCTCTCTCTACCTCAGGACGGCCCCCGCAG
 CAAGCCCCAGCCAAAGGATAATGGGGACGTTTCCAGGACTGCATTGAGTGGTACTGACATCCAGACT
 GCTGTACGGACCAACTCCACCTTGTCCAGGCCTTGGTGGAAACATGTCAAGGAGGAGTGTGACCCGCTGG
 GCCCTGGCATGGCCGACATATGCAAGAATATATCAGCCAGTATTCTGAAATTGCTATCCAGATGATGAT
 GCACATGCAACCCAAGGAGATCTGTGCGCTGGTTGGGTTCTGTGATGAGGTGAAAGAGATGCCCATGCAG
 ACTCTGGTCCCCGCCAAAGTGGCCTCCAAGAATGTATCCCTGCCCTGGAAGTGGTGGAGCCCATTAAGA
 AGCAGGAGTCCCAGCAAAGTCTGATGTTTACTGTGAGGTGTGTGAATTCCTGGTGAAGGAGGTGACCAA
 GCTGATTGACAACAAGAAGTCTGAGAAAGAAATACTCGACGCTTTTGACAAAATGTCTCGAAGCTGCCG
 AAGTCCCTGTCCGAAAGAGTCCAGGAGGTGGTGGACACGTACGGCAGCTCCATCCTGTCCATCCTGCTGG
 AGGAGTCAAGCCTGAGCTGGTGTGACGATGCTGCACCTCTGCTCTGGCAGCGGCTGCCTGACTGAC
 CGTTACGCTGACTCAGCCAAAGGACGGTGGCTTCTGCGAAGTGTGCAAGAAGCTGGTGGTTATTTGGAT
 CGCAACCTGGAGAAAAACAGCACAAGCAGGAGATCCTGGCTGCTTGGAAAGGCTGCAGCTTCTGTC
 CAGACCCTTACCAGAAGCAGTGTGATCAGTTTGTGGCAGAGTACGAGCCCGTGTGATCGAGATCCTGGT
 GGAGGTGATGGATCCTTCTTCTGTGCTTGAATTTGGAGCCTGCCCTCGGCCATAAGCCCTTGTG
 GGAAGTGAAGTGTATATGGGGCCAAGCTACTGGTCCAGAACACAGAGACAGCAGCCAGTGAATG
 CTGTCGAGCATTGCAAACGCCATGTGTGGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213049 protein sequence
 Red=Cloning site Green=Tags(s)

MYALFLLASLLGAALAGPVLGLKECTRGSVWCQNVKTASDCGAVKHCLQTVWNKPTVKSLPCDICKDVV
 TAAGDMLKDNATEEEILVYLEKTCDWLKPNNMSASCKEIVDSYLPVILDIKGEISRPGVCSALNLCES
 LQKHLAELNHQKQLESNKIPELDMTEVVAPFMANIPLLLYPQDGRSKPQPKDNGDVCQDCIQMVTDIQT
 AVRTNSTFVQALVEHVKEECDRLGPGMADICKNYISQYSEIAIQMMHMQPKEICALVGFCEVKEMPMQ
 TLVPAKVASKNVIPELELVEPIKHEVPAKSDVYCEVCEFLVKEVTKLIDNNKTEKEILDAFDKMSKLP
 KSLSEECQEVVDYTGSSILSILLEEVSEPLVCSMLHLCSTRLPALTVHVTQPKDGGFCEVCKKLVGYLD
 RNLEKNSTKQEILAALEKGSFLPDYQKQCDQFVAEYEPVLEIEILVEVMDPSFVCLKIGACPSAHKPLL
 GTEKCIWGPSYWCQNTETAQAQNAVEHCKRHVWN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6579_c11.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001042466

ORF Size: 1425 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 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).

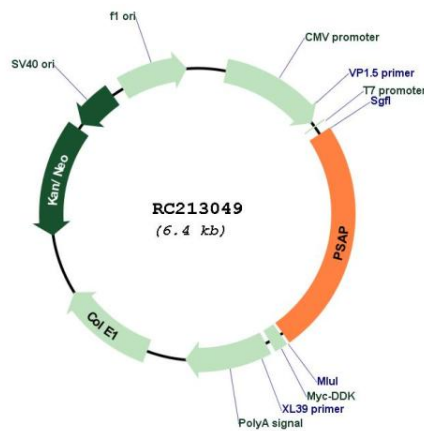
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_001042466.3](#)

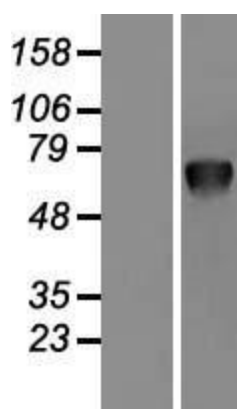
RefSeq Size: 2845 bp
 RefSeq ORF: 1581 bp
 Locus ID: 5660
 UniProt ID: [P07602](#)
 Cytogenetics: 10q22.1
 Protein Families: Druggable Genome
 Protein Pathways: Lysosome
 MW: 58.1 kDa

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]

Product images:



Circular map for RC213049



Western blot validation of overexpression lysate (Cat# [LY420920]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213049 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).