

## Recombinant Human PSAP protein, His-tagged

**Cat. No.** PSAP-21H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human PSAP(Gly17~Asn524), fused with N-terminal linker (2 extra AA), C-terminal linker (2 extra AA) and C-terminal His-tag (6 extra AA) was expressed in HEK293.
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	17-524 a.a.
<b>Description</b>	This gene encodes a highly conserved glycoprotein which is a precursor for 4 cleavage products: 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, Tay-Sachs disease, and metachromatic leukodystrophy. Alternative splicing results in multiple transcript variants encoding different isoforms.
<b>Form</b>	Filtered (0.4 μm) and lyophilized in 0.5 mg/mL in 0.05 M phosphate buffer, 0.075 M NaCl, pH 7.4
<b>Molecular Mass</b>	57.7 kDa (calculated), migrates at ~ 65 kDa, alt. at ~ 25 kDa (disaposins) or ~ 35 kDa

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(trisaposins) on SDS PAGE

**AA Sequence**

ASGPVLGLKE CTRGSAVWCQ NVKTASDCGA VKHCLQTVWN KPTVKSLPCD  
 ICKDVVTAAG DMLKDNATEE EILVYLEKTC DWLPKPNMSA SCKEIVDSYL  
 PVILDIKGE MSRPGEVCSA LNLCESLQKH LAELNHQKQL ESNKIPELDM  
 TEVVAPFMAN IPLLLYPQDG PRSKPQPKDN GDVCQDCIQM VTDIQTAVRT  
 NSTFVQALVE HVKEECDRLG PGMADICKNY ISQYSEIAIQ MMMHMQPKEI  
 CALVGFCDDEV KEMPMQTLVP AKVASKNVIP ALELVEPIKK HEVPAKSDVY  
 CEVCEFLVKE VTKLIDNNKT EKEILDAFDK MCSKLPKSLS EECQEVVDY  
 GSSILSILLE EVSPELVCSM LHLCSGTRLP ALTVHVTQPK DGGFCEVCKK  
 LVGYLDRNLE KNSTKQEILA ALEKGC SFLP DPYQKQCDQF VAEYEPVLIE  
 ILVEVMDPSF VCLKIGACPS AHKPLLGTEK CIWGPSYWCQ NTETAQCNA  
 VEHCKRHVWN KLHHHHHH

**Endotoxin**

<0.1 EU/g

**Purity**

Purity as determined by densitometric image analysis: >95%

**Applications**

Cell culture and/or animal studies, ELISA, Western blotting

**Storage**

Store lyophilized protein at –80 centigrade Lyophilized protein remains stable until the expiry date when stored at –80 centigrade Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at –80 centigrade for long term storage. Reconstituted protein can be stored at 4 centigrade for a week.

**Reconstitution**

Add deionized water to prepare a working stock solution of 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

**GENE INFORMATION**

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<b>Gene Name</b>	PSAP prosaposin [ Homo sapiens ]
<b>Official Symbol</b>	PSAP
<b>Synonyms</b>	PSAP; prosaposin; GLBA, SAP1, sphingolipid activator protein 1; proactivator polypeptide; variant Gaucher disease and variant metachromatic leukodystrophy; sphingolipid activator protein-1; GLBA; SAP1; FLJ00245; MGC110993;
<b>Gene ID</b>	5660
<b>mRNA Refseq</b>	NM_002778
<b>Protein Refseq</b>	NP_002769
<b>MIM</b>	176801
<b>UniProt ID</b>	P07602
<b>Chromosome Location</b>	10q21-q22
<b>Pathway</b>	Glycosphingolipid metabolism, organism-specific biosystem; Hemostasis, organism-specific biosystem; Lysosome, organism-specific biosystem; Lysosome, conserved biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Platelet activation, signaling and aggregation, organism-specific biosystem;
<b>Function</b>	enzyme activator activity; lipid binding;

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