

Recombinant Human PSAP protein, His-tagged

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	HEK293
ProteinLength	17-524 a.a.
Description	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.
Form	Filtered (0.4 µm) and lyophilized in 0.5 mg/mL in 0.05 M phosphate buffer, 0.075 M NaCl, pH 7.4
Molecular Mass	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
 CALVGFCDEV KEMPMQTLVP AKVASKNVIP ALELVEPIKK HEVPAKSDVY
 CEVCEFLVKE VTKLIDNNKT EKEILDAFDK MCSKLPKSLS EECQEVVDY
 GSSILSILLE EVSPELVCSM LHLCSGTRLP ALTVHVTQPK DGGFCEVCKK
 LVGYLDRNLE KNSTKQEILA ALEKGC SFLP DPYQKQCDQF VAEYEPVLIE
 ILVEVMDPSF VCLKIGACPS AHKPLLGTEK CIWGPSYWCQ NTETAAQCNA
 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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Gene Name	PSAP prosaposin [Homo sapiens]
Official Symbol	PSAP
Synonyms	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;
Gene ID	5660
mRNA Refseq	NM_002778
Protein Refseq	NP_002769
MIM	176801
UniProt ID	P07602
Chromosome Location	10q21-q22
Pathway	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;
Function	enzyme activator activity; lipid binding;