PSAP/Prosaposin Protein, Human (HEK293, His)

Cat. No.:	HY-P76553
Synonyms:	Proactivator polypeptide; Saposin-A; PSAP; GLBA; SAP1
Species:	Human
Source:	HEK293
Accession:	NP_002769.1 (G17-N524)
Gene ID:	5660
Molecular Weight:	60-85 kDa

PROPERTIES

AA Sequence	G P V L G L K E C T R G S A V W C Q N V K T A S D C G A V K H C L Q T V W N K P T V K S L P C D I C K D V V T A A G D M L K D N A T E E E I L V Y L E K T C D W L P K P N M S A S C K E I V D S Y L P V I L D I I K G E M S R P G E V C S A L N L C E S L Q K H L A E L N H Q K Q L E S N K I P E L D M T E V V A P F M A N I P L L L Y P Q D G P R S K P Q P K D N G D V C Q D C I Q M V T D I Q T A V R T N S T F V Q A L V E H V K E E C D R L G P G M A D I C K N Y I S Q Y S E I A I Q M M M H M Q P K E I C A L V G F C D E V K E M P M Q T L V P A K V A S K N V I P A L E L V E P I K K H E V P A K S D V Y C E V C E F L V K E V T K L I D N N K T E K E I L D A F D K M C S K L P K S L S E E C Q E V V D T Y G S S I L S I L L E E V S P E L V C S M L H L C S G T R L P A L T V H V T Q P K D G G F C E V C K K L V G Y L D R N L E K N S T K Q E I L A A L E K G C S F L P D P Y Q K Q C D Q F V A E Y E P V L I E I L V E V M D P S F V C L K I G A C P S A H K P L L G T E K C I W G P S Y W C Q N T E T A A Q C N A V E H C K R H V W N
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The PSAP/Prosaposin Protein, encoded by this gene, is a highly conserved preproprotein that undergoes proteolytic processing to yield four main cleavage products—saposins A, B, C, and D. Each domain of the precursor protein, approximately 80 amino acid residues long, exhibits nearly identical placement of cysteine residues and glycosylation sites. Saposins A-D primarily localize to the lysosomal compartment, where they play a crucial role in facilitating the catabolism of glycosphingolipids with short oligosaccharide groups. The precursor protein exists in both secretory and integral membrane forms and possesses neurotrophic activities. Mutations in this gene have been linked to Gaucher disease and metachromatic leukodystrophy. Alternative splicing yields multiple transcript variants, with at least one encoding an isoform that undergoes proteolytic processing. The gene displays ubiquitous expression, with elevated levels detected in the spleen (RPKM 523.6), gall bladder (RPKM 491.5), and 25 other tissues, emphasizing its essential role across various physiological contexts in multiple organs.

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