SAP Protein Human HEK293

Product Data Sheet

Type: Recombinant
Source: HEK293
Species: Human
Other names: Proactivator polypeptide, Prosaposin, PSAP

Cat. No.:

RD172338025	(0.025 mg)
RD172338100	(0.1 mg)

Description

Total 518 AA, UniProt P07602 (Gly17-Asn524). MW: 57.7 kDa (calculated), migrates at ~ 65 kDa, alt. at ~ 25 kDa (disaposins) or ~ 35 kDa (trisaposins) on SDS PAGE; N-terminal linker (2 extra AA), C-terminal linker (2 extra AA) and C-terminal His-tag (6 extra AA). Protein identity confirmed by LC-MS/MS.

Introduction to the Molecule

Prosaposin is a precursor of four lysosomal saposin proteins (saposin A, B, C and D). Saposins are heat-stable glycoproteins that facilitate the catabolism of glycosphingolipids with short oligosaccharide groups. It stimulates neurite outgrowth and increases choline acetyltransferase activity. Secreted prosaposin is presumed to have additional functions in human milk, cerebrospinal fluid and seminal plasma.

Research topic

Others

Amino Acid Sequence

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ASGPVLGLKE CTRGSAVWCQ NVKTASDCGA VKHCLQTVWN KPTVKSLPCD ICKDVVTAAG DMLKDNATEE EILVYLEKTC
DWLPKPNMSA SCKEIVDSYL PVILDIIKGE MSRPGEVCSA LNLCESLQKH LAELNHQKQL ESNKIPELDM TEVVAPFMAN
IPLLLYPQDG PRSKPQPKDN GDVCQDCIQM VTDIQTAVRT NSTFVQALVE HVKEECDRLG PGMADICKNY ISQYSEIAIQ
MMMHMQPKEI CALVGFCDEV KEMPMQTLVP AKVASKNVIP ALELVEPIKK HEVPAKSDVY CEVCEFLVKE VTKLIDNNKT
EKEILDAFDK MCSKLPKSLS EECQEVVDTY GSSILSILLE EVSPELVCSM LHLCSGTRLP ALTVHVTQPK DGGFCEVCKK
LVGYLDRNLE KNSTKQEILA ALEKGCSFLP DPYQKQCDQF VAEYEPVLIE ILVEVMDPSF VCLKIGACPS AHKPLLGTEK
CIWGPSYWCQ NTETAAQCNA VEHCKRHVWN KLHHHHHH
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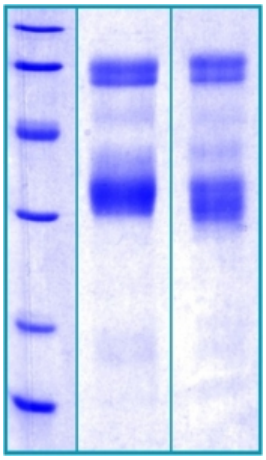
Source

HEK293

Purity

Purity as determined by densitometric image analysis: >95%

SDS-PAGE gel



12% SDS-PAGE separation of Human PSAP:

1. M.W. marker - 97, 66, 45, 31, 21, 14 kDa
2. reduced and boiled sample, 2.5µg / lane
3. non-reduced and non-boiled sample, 2.5µg / lane

The ~66KDa band corresponds to whole prosaposin molecule that consists of four saposin units. The individual saposins naturally cleave off the prosaposin which results in ~15, ~35 and ~50 kDa fragments of mono-, di- and trisaposins, respectively.

Endotoxin

<0.1 EU/µg

Formulation

Filtered (0.4 µm) and lyophilized in 0.5 mg/mL in 0.05 M phosphate buffer, 0.075 M NaCl, pH 7.4

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.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

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

Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.
LAL TEST to determine quantity of the endotoxin.

Applications

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

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