10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PSAP Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1791a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P07602
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4D5F4
Isotype	IgG1
Calculated MW	58113
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.
Immunogen	Purified recombinant fragment of human PSAP (AA: 325-524) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	5660
Other Names	Prosaposin, Proactivator polypeptide, Saposin-A, Protein A, Saposin-B-Val, Saposin-B, Cerebroside sulfate activator, CSAct, Dispersin, Sphingolipid activator protein 1, SAP-1, Sulfatide/GM1 activator, Saposin-C, A1 activator, Co-beta-glucosidase, Glucosylceramidase activator, Sphingolipid activator protein 2, SAP-2, Saposin-D, Component C, Protein C, PSAP, GLBA, SAP1
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PSAP Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

Protein Information

Name	PSAP
Synonyms	GLBA, SAP1
Function	Saposin-A and saposin-C stimulate the hydrolysis of glucosylceramide by beta-glucosylceramidase (EC 3.2.1.45) and galactosylceramide by beta-galactosylceramidase (EC 3.2.1.46). Saposin- C apparently acts by combining with the enzyme and acidic lipid to form an activated complex, rather than by solubilizing the substrate. Saposin-D is a specific sphingomyelin phosphodiesterase activator (EC 3.1.4.12). Saposins are specific low-molecular mass non-enzymic proteins, they participate in the lysosomal degradation of sphingolipids, which takes place by the sequential action of specific hydrolases.
Cellular Location	Lysosome

Background

This gene encodes a hematopoietic-specific transcription factor that induces high-level expression of adult beta-globin and other erythroid genes. The zinc-finger protein binds to the DNA sequence CCACACCCT found in the beta hemoglobin promoter. Heterozygous loss-of-function mutations in this gene result in the dominant In(Lu) blood phenotype. ; ;

References

1.Biochem J. 2012 Jan 15;441(2):665-74. 2.Mol Cancer. 2010 Feb 4;9:30.

Images

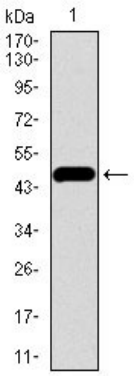
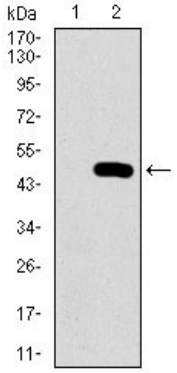


Figure 1: Western blot analysis using PSAP mAb against human PSAP recombinant protein. (Expected MW is 47.8 kDa)

Figure 2: Western blot analysis using PSAP mAb against HEK293 (1) and PSAP (AA: 325-524)-hIgGFc transfected HEK293 (2) cell lysate.



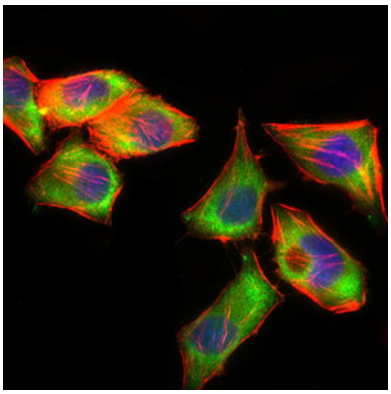


Figure 3: Immunofluorescence analysis of HepG2 cells using PSAP mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

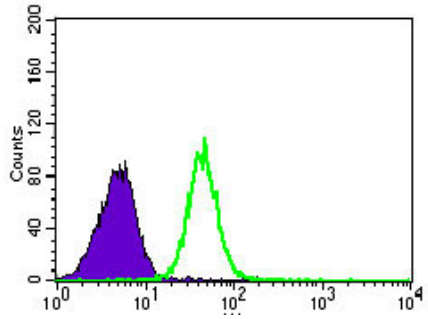


Figure 4: Flow cytometric analysis of HeLa cells using PSAP mouse mAb (green) and negative control (purple).

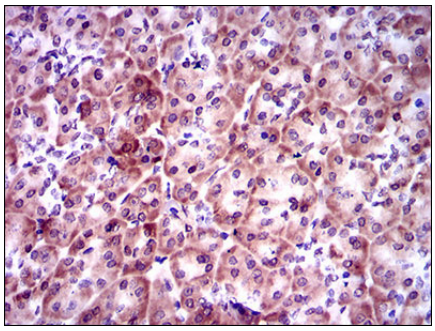


Figure 5: mmunohistochemical analysis of paraffin-embedded pancreas tissues using PSAP mouse mAb with DAB staining.