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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 (HGNC:9498)
Synonyms	GLBA, SAP1
Function	Saposins are specific low-molecular mass non-enzymatic glycoproteins that act as activator proteins for lysosomal sphingolipid-degrading enzymes, facilitating the hydrolysis of sphingolipids by extracting lipid substrates from membranes and presenting them to their respective enzymes. They are derived from a common precursor protein, prosaposin, which is proteolytically cleaved to yield four homologous proteins (saposin A, B, C, and D), each with distinct but partially overlapping lipid and enzyme specificities.
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

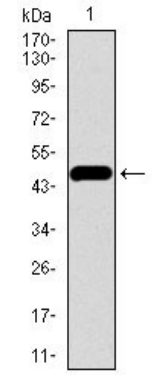


Figure 1: Western blot analysis using PSAP mAb against human PSAP recombinant protein. (Expected MW is 47.8 kDa)

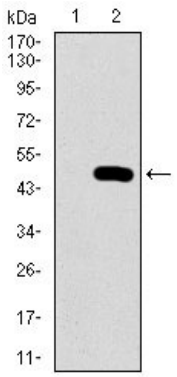


Figure 2: Western blot analysis using PSAP mAb against HEK293 (1) and PSAP (AA: 325-524)-hIgGFc transfected HEK293 (2) cell lysate.

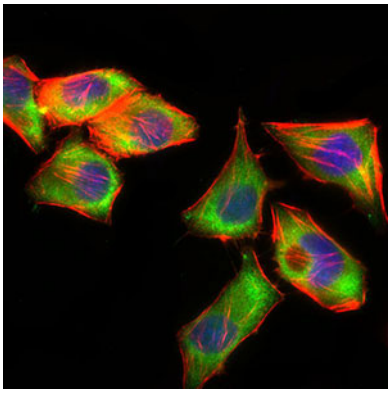


Figure 3: Immunofluorescence analysis of HepG2 cells using PSAP mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

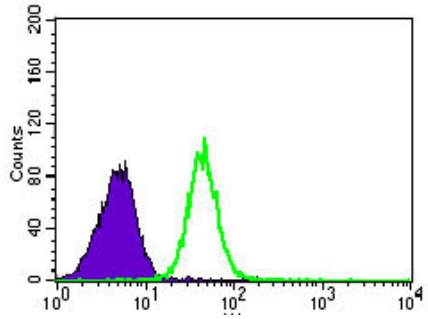


Figure 4: Flow cytometric analysis of HeLa cells using PSAP mouse mAb (green) and negative control (purple).

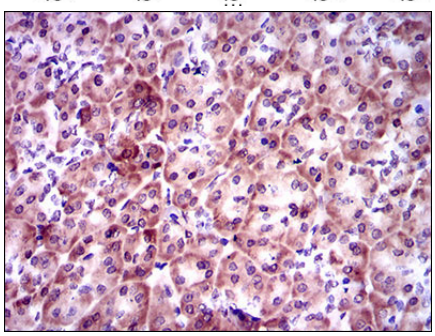


Figure 5: mmunohistochemical analysis of paraffin-embedded pancreas tissues using PSAP mouse mAb with DAB staining.

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