

SAP (6E6): sc-69796

BACKGROUND

Serum amyloid P (SAP) is a glycoprotein belonging to the pentraxin family of proteins, which has a characteristic pentameric organization and calcium dependent ligand binding. Secreted by liver epithelial cells, SAP is found in serum and urine. Although the function of SAP has not been clearly established, it has been shown to interact with DNA and histones, and is thought to play a role in scavenging nuclear material released from damaged circulating cells. Also designated PTX2, SAP is a precursor of the protein amyloid P component (AP), which is universally associated with the amyloid deposits in all forms of amyloidoses, including Alzheimer's disease. SAP is a decamer of ten identical, noncovalently linked subunits, each of which may be post-translationally modified by glycosylation.

REFERENCES

- Mantzouranis, E.C., et al. 1985. Human serum amyloid P component. cDNA isolation, complete sequence of pre-serum amyloid P component and localization of the gene to chromosome 1. *J. Biol. Chem.* 260: 7752-7756.
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- Pepys, M.B., et al. 1994. Human serum amyloid P component is an invariant constituent of amyloid deposits and has a uniquely homogeneous glyco-structure. *Proc. Natl. Acad. Sci. USA* 91: 5602-5606.
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- Hohenester, E., et al. 1997. Crystal structure of a decameric complex of human serum amyloid P component with bound dAMP. *J. Mol. Biol.* 269: 570-578.
- Kiernan, U.A., et al. 2004. Proteomic characterization of novel serum amyloid P component variants from human plasma and urine. *Proteomics* 4: 1825-1829.
- Ciurana, C.L. and Hack, C.E. 2006. Competitive binding of pentraxins and IgM to newly exposed epitopes on late apoptotic cells. *Cell. Immunol.* 239: 14-21.

CHROMOSOMAL LOCATION

Genetic locus: APCS (human) mapping to 1q23.2; Apcs (mouse) mapping to 1 H3.

SOURCE

SAP (6E6) is a mouse monoclonal antibody raised against purified SAP of human origin.

PRODUCT

Each vial contains IgG₁ in 100 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SAP (6E6) is recommended for detection of SAP of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

Suitable for use as control antibody for SAP siRNA (h): sc-42972, SAP siRNA (m): sc-42973, SAP shRNA Plasmid (h): sc-42972-SH, SAP shRNA Plasmid (m): sc-42973-SH, SAP shRNA (h) Lentiviral Particles: sc-42972-V and SAP shRNA (m) Lentiviral Particles: sc-42973-V.

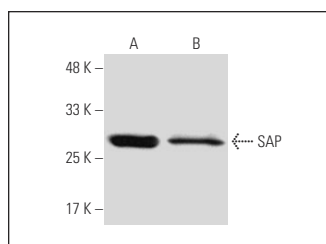
Molecular Weight of SAP oligomeric protein: 200 kDa.

Molecular Weight of SAP noncovalently bound subunit: 26 kDa.

Molecular Weight of SAP glycosylated subunit: 30 kDa.

Positive Controls: human plasma extract: sc-364374.

DATA



SAP (6E6): sc-69796. Western blot analysis of SAP purified from human plasma (A) and in human plasma (B).

SELECT PRODUCT CITATIONS

- Wang, Z., et al. 2012. Differential proteome profiling of pleural effusions from lung cancer and benign inflammatory disease patients. *Biochim. Biophys. Acta* 1824: 692-700.
- Guo, P., et al. 2016. Effect and mechanism of fuzhisan and donepezil on the sirtuin 1 pathway and amyloid precursor protein metabolism in PC-12 cells. *Mol. Med. Rep.* 13: 3539-3546.
- Lee, E.H., et al. 2016. Immunogenomics reveal molecular circuits of diclofenac induced liver injury in mice. *Oncotarget* 7: 14983-15017.
- Garnier, M., et al. 2016. Serum amyloid P contained in alveolar fluid from patients with acute respiratory distress syndrome mediates the inhibition of monocyte differentiation into fibrocyte. *Crit. Care Med.* 44: e563-e573.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.