

SAPAP1 Antibody

Catalog # ASC10701

Product Information

Application WB, IF, E, IHC-P

Primary Accession 060500

Other Accession NP_004737, 4758822 Reactivity Human, Mouse, Rat

Host Rabbit Clonality **Polyclonal** Isotype IgG **Calculated MW** 134742 Concentration (mg/ml) 1 mg/mL Conjugate Unconjugated

Application Notes SAPAP1 antibody can be used for detection of SAPAP1 by Western blot at 0.5 -

1 Ig/mL. Antibody can also be used for immunohistochemistry starting at 5

□g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID 4868

Other Names Nephrin, Renal glomerulus-specific cell adhesion receptor, NPHS1, NPHN

Target/Specificity NPHS1; At least three isoforms of SAPAP1 are known to exist. This SAPAP1

antibody will not cross-react with other SAPAP proteins.

SAPAP1 antibody can be stored at 4°C for three months and -20°C, stable for **Reconstitution & Storage**

> up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high

temperatures.

Precautions SAPAP1 Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

Protein Information

Name NPHS1

NPHN **Synonyms**

Function Seems to play a role in the development or function of the kidney

> glomerular filtration barrier. Regulates glomerular vascular permeability. May anchor the podocyte slit diaphragm to the actin cytoskeleton. Plays a role in

skeletal muscle formation through regulation of myoblast fusion (By

similarity).

Cellular Location Cell membrane; Single-pass type I membrane protein. Note=Predominantly located at podocyte slit diaphragm between podocyte foot processes. Also associated with podocyte apical plasma membrane.

Tissue Location

Specifically expressed in podocytes of kidney glomeruli

Background

SAPAP1 Antibody: SAP90/PSD-95-associated protein 1 (SAPAP1, also known as DLGAP1 or GKAP) is a member of a protein family whose members specifically interact with PSD-95/SAP90, a membrane-associated guanylate kinase localized at postsynaptic density (PSD) in neuronal cells. Like the other SAPAP proteins, SAPAP1 is thought to be an adaptor protein that also interacts with different synaptic scaffolding proteins, cytoskeletal and signaling components, such as focal adhesion kinase (FAK) and proline-rich tyrosine kinase 2 (PYK2). SAPAP1 mRNA is targeted to cell bodies in a similar manner to SAPAP2 and -4, whereas SAPAP3 mRNA is detected mainly in cell bodies. SAPAP1 protein however, is targeted to the synapse and is not reliant on the synaptic localization of PSD-95 or the synaptic scaffolding molecule (S-SCAM).

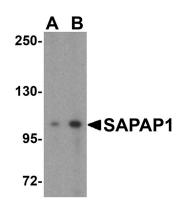
References

SAPAPs. A family of PSD-95/SAP90-associated proteins localized at postsynaptic density. J. Biol. Chem.1997; 272:11943-51.

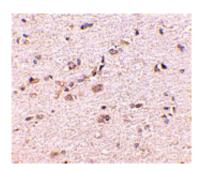
Kindler S, Rehbein M, Classen B, et al. Distinct spatiotemporal expression of SAPAP transcripts in the developing rat brain: a novel dendritically localized mRNA. Brain Res. Mol. Brain Res. 2004; 126:14-21. Bongiorno-Borbone L, Kadare G, Benfenati F, et al. FAK and PYK2 interact with SAP/PSD-95-associated protein-3. Biochem. Biophys. Res. Commun.2005; 337:641-6.

Welch JM, Wang D, and Feng G. Differential mRNA expression and protein localization of the SAP90/PSD-95-associated proteins (SAPAPs) in the nervous system of the mouse. J. Comp. Neurol.2004; 472:24-39.

Images

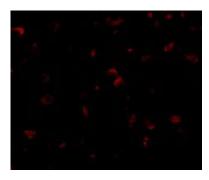


Western blot analysis of SAPAP1 in rat brain tissue lysate with SAPAP1 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of SAPAP1 in human brain with SAPAP1 antibody at 5 µg/mL.

Immunofluorescence of SAPAP1 in Human Brain cells with SAPAP1 antibody at 20 µg/mL.



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