

SAPAP1 Antibody

SAPAP1: SAP90/PSD-95-associated protein 1, Disks large-associated protein 1, DLGAP1, DAP-1, GKAP

CATALOG No.:4623

BACKGROUND:

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 (1). 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) (2,3). SAPAP1 mRNA is targeted to cell bodies in a similar manner to SAPAP2 and -4, whereas SAPAP3 mRNA is detected mainly in cell bodies (2,4). 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) (5). At least three isoforms of SAPAP1 are known to exist. This SAPAP1 antibody will not cross-react with other SAPAP proteins.

SOURCE:

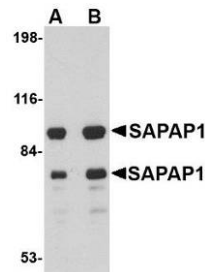
Rabbit polyclonal SAPAP1 antibody was raised against an 18 amino acid peptide from near the center of human SAPAP1 (GenBank accession no. NP_004737).

APPLICATIONS:

SAPAP1 antibody can be used for detection of SAPAP1 by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user.) Human brain tissue lysate can be used as positive control. SAPAP1 antibody is human, mouse and rat reactive. **For research use only.**

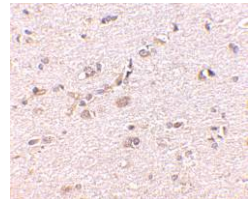
STORAGE:

SAPAP1 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



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.



RELATED PRODUCTS:

- Blocking Peptide, Catalog No. **4623P**.
- Human Brain Tissue Lysate, Catalog No. **1303**.
- SAPAP2 Antibody, Catalog No. **4625**.
- SAPAP3 Antibody, Catalog No. **4411**.
- SAPAP4 Antibody, Catalog No. **4633**.

REFERENCES:

1. SAPAPs. A family of PSD-95/SAP90-associated proteins localized at postsynaptic density. *J. Biol. Chem.* 1997; 272:11943-51.
2. 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.
3. 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.
4. 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.
5. Yao I, Iida J, Nishimura W, et al. Synaptic localization of SAPAP1, a synaptic membrane-associated protein. *Genes Cells* 2003; 8:121-9. (08-01D)