

SAPAP2 Antibody

Catalog # ASC10702

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9P1A6
Other Accession	Q9P1A6 , 160395585
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	117620
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SAPAP2 antibody can be used for detection of SAPAP2 by Western blot at 0.5 - 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Other Names	Disks large-associated protein 2, DAP-2, PSD-95/SAP90-binding protein 2, SAP90/PSD-95-associated protein 2, SAPAP2, DLGAP2, DAP2
Target/Specificity	DLGAP2; At least three isoforms of SAPAP2 are known to exist. This SAPAP2 antibody will not cross-react with other SAPAP proteins.
Reconstitution & Storage	SAPAP2 antibody can be stored at 4°C for three months and -20°C, stable for 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	SAPAP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DLGAP2 (HGNC:2906)
Function	May play a role in the molecular organization of synapses and neuronal cell signaling. Could be an adapter protein linking ion channel to the subsynaptic cytoskeleton. May induce enrichment of PSD- 95/SAP90 at the plasma membrane.
Cellular Location	Cell membrane; Peripheral membrane protein. Postsynaptic density. Synapse. Note=Postsynaptic density of neuronal cells
Tissue Location	Expressed in brain and kidney.

Background

SAPAP2 Antibody: SAP90/PSD-95-associated protein 2 (SAPAP2, also known as DLGAP2) 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, SAPAP2 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). SAPAP2 mRNA is targeted to cell bodies in a similar manner to SAPAP1 and -4, whereas SAPAP3 mRNA is detected mainly in cell bodies.

References

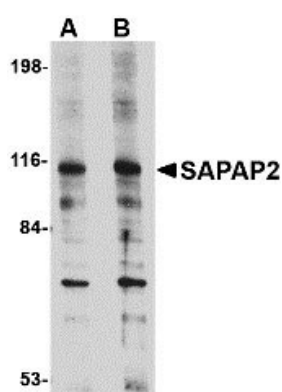
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Ranta S, Zhang Y, Ross B, et al. Positional cloning and characterization of the human DLGAP2 gene and its exclusion in progressive epilepsy with mental retardation. *Eur. J. Hum. Genet.*2000; 8:381-4.

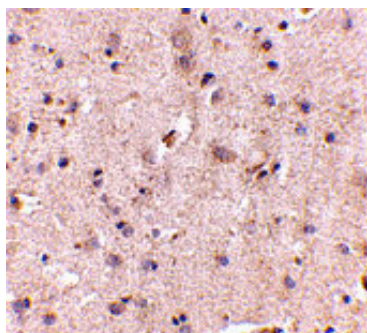
Kindler S, Rehbein M, Classen B, et al. Distinct spatiotemporal expression of SAPAP transcripts in the developing rat brain: a novel dendritically localized mRNA. *Brain Res. Mol. Brain Res.*2004; 126:14-21.

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.

Images

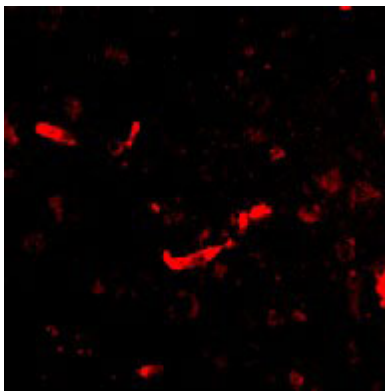


Western blot analysis of SAPAP2 in L1210 cell lysate with SAPAP2 antibody at (A) 0.5 and (B) 1 $\mu\text{g/mL}$.



Immunohistochemistry of SAPAP2 in human brain with SAPAP2 antibody at 5 $\mu\text{g/mL}$.

Immunofluorescence of SAPAP2 in Human Brain cells with SAPAP2 antibody at 20 $\mu\text{g/mL}$.



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