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PRICKLE2 Antibody

Catalog # ASC11400

Product Information

Application	WB, IF, E
Primary Accession	Q7Z3G6
Other Accession	NP_942559, 38524620
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	95615
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PRICKLE2 antibody can be used for detection of PRICKLE2 by Western blot at 1 g/mL. Antibody can also be used for immunofluorescence starting at 20 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	166336
Other Names	Prickle-like protein 2, PRICKLE2
Target/Specificity	PRICKLE2; Two isoforms of PRICKLE2 are known to exist. PRICKLE2 antibody is predicted to not cross-react with other PRICKLE protein family members.
Reconstitution & Storage	PRICKLE2 antibody can be stored at 4℃ for three months and -20℃, 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	PRICKLE2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRICKLE2 {ECO:0000303|PubMed:26942291, ECO:0000312|HGNC:HGNC:20340}
Function	Is involved in the organization and maintenance of axon initial segment (AIS) architecture, likely cooperating with IGSF9B to regulate ANK3/ANKG localization to AIS (By similarity). By binding to and regulating ANK3/ANKG, it modulates its ability to bundle microtubules, a crucial mechanism for establishing neuronal polarity and AIS formation (By similarity). During early embryonic development, has a role in blastocyst formation, likely controlling the redistribution of the microtubule network during embryo compaction and the establishment of apical/basal cell polarity (By similarity).

Cellular Location	Postsynaptic density {ECO:0000250|UniProtKB:A6IBC5}. Cell projection, axon {ECO:0000250|UniProtKB:Q80Y24}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q80Y24}. Nucleus {ECO:0000250|UniProtKB:Q80Y24} Note=In the axon, strongly expressed in the axon initial segment (AIS) (By similarity). Detected in the nucleus of 2-cell-stage till 16-cell- stage embryos; nuclear expression decreases from the 16-cell stage onwards (By similarity). {ECO:0000250|UniProtKB:A6IBC5, ECO:0000250|UniProtKB:Q80Y24}
Tissue Location	Expressed in brain, eye and testis. Additionally in fetal brain, adult cartilage, pancreatic islet, gastric cancer and uterus tumors.

Background

PRICKLE2 Antibody: PRICKLE2, also known as Pk2 or EPM5, is a member of a highly conserved protein family that function in the noncanonical WNT signaling pathway which regulates intracellular calcium release and planar cell polarity. Both PRICKLE2 and the related protein PRICKLE1 are expressed in postmitotic neurons and promote neurite outgrowth, and both proteins promote neurite outgrowth via the Dishevelled dependent pathway in C1300 cells. PRICKLE2 localizes to the postsynaptic density and interacts with PSD-95 and NMDA receptors. Defects in the gene encoding PRICKLE2 are associated with autosomal recessive progressive myoclonic epilepsy.

References

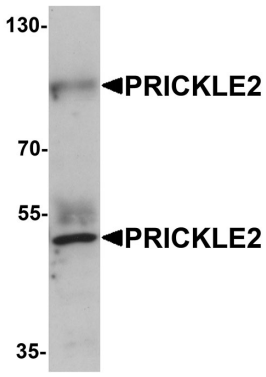
Katoh M and Katoh M. Identification and characterization of human PRICKLE1 and PRICKLE2 genes as well as mouse Prickle1 and Prickle2 genes homologous to Drosophila tissue polarity gene prickle. Int. J. Mol. Med. 2003; 11:249-56.

Veeman MT, Slusarski DC, Kaykas A, et al. Zebrafish prickle, a modulator of noncanonical Wnt/Fz signaling, regulates gastrulation movements. Curr. Biol. 2003; 13:680-5.

Okuda H, Miyata S, Mori Y, et al. Mouse Prickle1 and Prickle2 are expressed in postmitotic neurons and promote neurite outgrowth. FEBS Lett. 2007; 581:4754-60

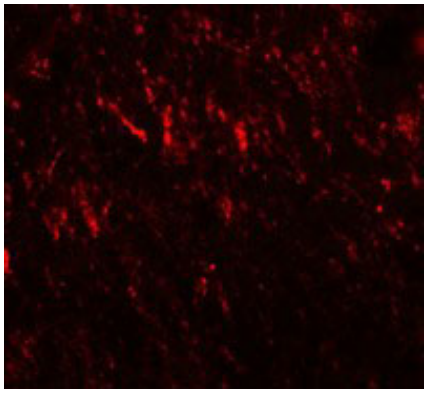
Fujimura L, Watanabe-Takano H, Sato Y, et al. Prickle promotes neurite outgrowth via the Dishevelled dependent pathway in C1300 cells. Neurosci. Lett. 2009; 467:6-10.

Images



Western blot analysis of PRICKLE2 in A-20 lysate with PRICKLE2 antibody at 1 µg/mL.

Immunofluorescence of PRICKLE2 in rat brain cells with PRICKLE2 antibody at 20 µg/mL.



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