

Prickle Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP54850

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q96MT3
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	94300
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Prickle
Epitope Specificity	551-650/831
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nuclear Membrane
SIMILARITY	Belongs to the prickle / espinas / testin family. Contains 3 LIM zinc-binding domains. Contains 1 PET domain.
SUBUNIT	Interacts with REST.
DISEASE	Defects in PRICKLE1 are the cause of progressive myoclonic epilepsy type 1B (EPM1B) [MIM:612437]. EPM1B is an autosomal recessive disorder characterized by myoclonus that progresses in severity over time, tonic-clonic seizures and ataxia. Defects in PRICKLE1 may be a cause of susceptibility to neural tube defects (NTD) [MIM:182940]. Congenital malformations of the central nervous system and adjacent structures related to defective neural tube closure during the first trimester of pregnancy. Failure of neural tube closure can occur at any level of the embryonic axis. Common NTD forms include anencephaly, myelomeningocele and spina bifida, which result from the failure of fusion in the cranial and spinal region of the neural tube. NTDs have a multifactorial etiology encompassing both genetic and environmental components.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Prickle1 is an 831 amino acid protein that contains one PET domain and three LIM zinc-binding domains and localizes to the cytoplasm, as well as to the nuclear membrane. Expressed at higher levels in placenta and at lower levels in liver, brain, kidney, lung and pancreas, Prickle1 is thought to function as a nuclear receptor that interacts with NRSF, a silencer protein that binds the DNA sequence element NRSE (neuron-restrictive silencer element). Defects in the gene encoding Prickle1 are associated with autosomal recessive progressive myoclonic epilepsy-1B, which is characterized by quick jerks of the arms, shoulders or legs. The gene encoding Prickle1 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

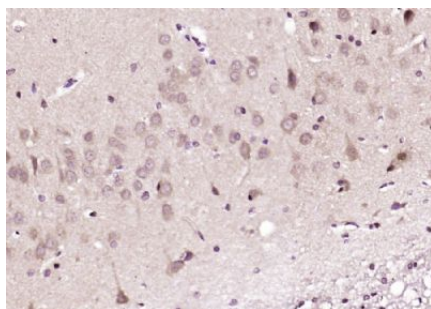
Additional Information

Gene ID	144165
Other Names	Prickle-like protein 1, REST/NRSF-interacting LIM domain protein 1, PRICKLE1, RILP
Target/Specificity	Expressed at highest levels in placenta and at lower levels in lung, liver, kidney and pancreas. Expressed in thalamus, hippocampus, cerebral cortex, and cerebellum (in neurons rather than glia).
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	PRICKLE1
Synonyms	RILP
Function	Involved in the planar cell polarity pathway that controls convergent extension during gastrulation and neural tube closure. Convergent extension is a complex morphogenetic process during which cells elongate, move mediolaterally, and intercalate between neighboring cells, leading to convergence toward the mediolateral axis and extension along the anteroposterior axis. Necessary for nuclear localization of REST. May serve as nuclear receptor.
Cellular Location	Nucleus membrane. Cytoplasm, cytosol. Note=A smaller amount is detected in the cytosol
Tissue Location	Expressed at highest levels in placenta and at lower levels in lung, liver, kidney and pancreas. Expressed in thalamus, hippocampus, cerebral cortex, and cerebellum (in neurons rather than glia).

Images



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Prickle) Polyclonal Antibody, Unconjugated (AP54850) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.