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Advillin Rabbit pAb

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Catalog # AP54508

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O75366
Reactivity	Mouse
Predicted	Human, Rat, Dog, Pig, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92027
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Advillin
Epitope Specificity	151-250/819
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	Cytoplasm > cytoskeleton. Cell projection. Cell projection > axon.
SIMILARITY	Belongs to the villin/gelsolin family. Contains 6 gelsolin-like repeats. Contains 1 HP (headpiece) domain.
SUBUNIT	Associates (via C-terminus) with actin. Interacts with SCARF1 (By similarity). Interacts with F-actin.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Advillin is an 819 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains one HP domain and six gelsolin-like repeats. Expressed at high levels in colon and small intestine and at lower levels in uterus, thymus, testis and prostate, advillin functions as a calcium-regulated Actin-binding protein that may be involved in the development of neuronal cells, specifically those that form ganglia. The gene encoding advillin maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

Additional Information

Gene ID	10677
Other Names	Advillin, p92, AVIL (HGNC:14188)
Target/Specificity	Most highly expressed in the small intestine and colonic lining. Weaker expression also detected in the thymus, prostate, testes and uterus.

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

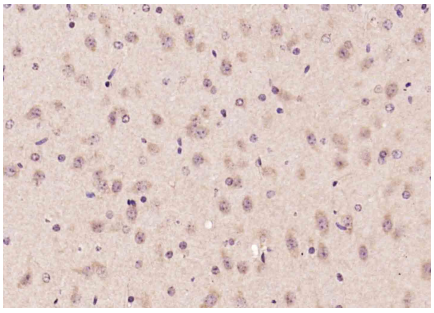
Protein Information

Name	AVIL (HGNC:14188)
Function	Ca(2+)-regulated actin-binding protein which plays an important role in actin bundling (PubMed:29058690). May have a unique function in the morphogenesis of neuronal cells which form ganglia. Required for SREC1-mediated regulation of neurite-like outgrowth. Plays a role in regenerative sensory axon outgrowth and remodeling processes after peripheral injury in neonates. Involved in the formation of long fine actin-containing filopodia-like structures in fibroblast. Plays a role in ciliogenesis. In podocytes, controls lamellipodia formation through the regulation of EGF-induced diacylglycerol generation by PLCE1 and ARP2/3 complex assembly (PubMed:29058690).
Cellular Location	Cytoplasm, cytoskeleton. Cell projection, lamellipodium. Cell junction, focal adhesion. Cell projection, neuron projection {ECO:0000250|UniProtKB:Q9WU06}. Cell projection, axon {ECO:0000250|UniProtKB:Q9WU06}. Note=In podocytes, present in the F-actin-enriched cell periphery that generates lamellipodia and focal adhesions.
Tissue Location	Most highly expressed in the small intestine and colonic lining. Weaker expression also detected in the thymus, prostate, testes and uterus (PubMed:12034507). Expressed in podocytes (at protein level) (PubMed:29058690).

Background

Advillin is an 819 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains one HP domain and six gelsolin-like repeats. Expressed at high levels in colon and small intestine and at lower levels in uterus, thymus, testis and prostate, advillin functions as a calcium-regulated Actin-binding protein that may be involved in the development of neuronal cells, specifically those that form ganglia. The gene encoding advillin maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

Images



Paraformaldehyde-fixed, paraffin embedded (mouse 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 (Advillin) Polyclonal Antibody, Unconjugated (AP54508) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.