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ANKS1B Rabbit pAb

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Catalog # AP59142

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q7Z6G8
Reactivity	Rat, Mouse, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	138066
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ANKS1B/AIDA1
Epitope Specificity	851-1000/1248
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm; Nucleus; Cell junction, synapse, postsynaptic cell membrane, postsynaptic density. Cell projection, dendritic spine. Nucleus. Nucleus, Cajal body. The synaptic localization requires DLG4 interaction. Translocation to the nucleus in response to stimulation of NMDA receptors (NMDARs) in a calcium-independent manner and Nucleus. The interaction with APP causes its partial exclusion from the nucleus, when APP is overexpressed.
SIMILARITY	Contains 7 ANK repeats. Contains 1 PID domain. Contains 2 SAM (sterile alpha motif) domains.
SUBUNIT	Isoform 3 interacts with DLG4. Interacts with EPHA8. Isoform 2 interacts with COIL. Isoform 4 interacts with APP and EPHA8. Isoform 6 interacts with EPHA8.
Post-translational modifications	Isoform 3 nuclear translocation requires an NMDAR-dependent proteolytic cleavage (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The β-Amyloid protein precursor (AbPP) is a widely expressed transmembrane protein that is processed into the b-Amyloid (Ab) peptide, which accumulates in insoluble plaques in the brain of Alzheimer's disease patients and AbPP intracellular domain (AID). AID may function as a pro-apoptotic peptide, a regulator of calcium homeostasis and a molecule involved in transcriptional regulation. The AID associated protein 1 (AIDA-1) is highly expressed in the brain and is regulated by AbPP. It interacts with AbPP to play a role in brain development. AIDA-1 also interacts with coilin in Cajal bodies to regulate pre-mRNA splicing.

Additional Information

Gene ID	56899
Other Names	Ankyrin repeat and sterile alpha motif domain-containing protein 1B,

	Amyloid-beta protein intracellular domain-associated protein 1, AIDA-1, E2A-PBX1-associated protein, EB-1, ANKS1B
Target/Specificity	Highly expressed in marrow from patients with pre-B ALL associated with the t(1;19) translocation. Strongly expressed in brain and testis. Expressed in fetal brain. Isoform 4 is highly expressed in brain (at protein level). Isoform 6 is expressed in brain and several cancer cell lines.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	ANKS1B
Function	Isoform 2 may participate in the regulation of nucleoplasmic coilin protein interactions in neuronal and transformed cells. Isoform 4 may play a role as a modulator of APP processing. Overexpression can down-regulate APP processing.
Cellular Location	Cytoplasm [Isoform 3]: Postsynaptic density. Cell projection, dendritic spine. Nucleus. Nucleus, Cajal body. Note=The synaptic localization requires DLG4 interaction. Translocation to the nucleus in response to stimulation of NMDA receptors (NMDARs) in a calcium-independent manner (By similarity). [Isoform 6]: Nucleus.
Tissue Location	Highly expressed in marrow from patients with pre-B ALL associated with the t(1;19) translocation. Strongly expressed in brain and testis. Expressed in fetal brain. Isoform 4 is highly expressed in brain (at protein level). Isoform 6 is expressed in brain and several cancer cell lines.

Background

The β-Amyloid protein precursor (AbPP) is a widely expressed transmembrane protein that is processed into the b-Amyloid (Ab) peptide, which accumulates in insoluble plaques in the brain of Alzheimer’s disease patients and AbPP intracellular domain (AID). AID may function as a pro-apoptotic peptide, a regulator of calcium homeostasis and a molecule involved in transcriptional regulation. The AID associated protein 1 (AIDA-1) is highly expressed in the brain and is regulated by AbPP. It interacts with AbPP to play a role in brain development. AIDA-1 also interacts with coilin in Cajal bodies to regulate pre-mRNA splicing.