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Spectrin alpha chain, non-erythrocytic 1 Rabbit pAb

Catalog # AP99885

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q13813
Other Accession	Q13813
Predicted	Rat, Human, Mouse, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	284539
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Spectrin alpha chain, non-erythrocytic 1
Epitope Specificity	30-110/2472
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the spectrin family.Contains 3 EF-hand domains.Contains 1 SH3 domain.Contains 23 spectrin repeats.
SUBUNIT	Like erythrocyte spectrin, the spectrin-like proteins are capable of forming dimers which can further associate to tetramers. Interacts with isoform 1 of ACP1. Interacts with CALM and EMD. Interacts (via C-terminal spectrin repeats) with TRPC4. Identified in a complex with ACTN4, CASK, IQGAP1, MAGI2, NPHS1 and SPTBN1.
Post-translational modifications	Phosphorylation of Tyr-1176 decreases sensitivity to cleavage by calpain in vitro.
DISEASE	Defects in SPTAN1 are the cause of epileptic encephalopathy early infantile type 5 (EIEE5) [MIM:613477]. EIEE5 is a disorder characterized by seizures associated with hypsarrhythmia profound mental retardation with lack of visual attention and speech development, as well as spastic quadriplegia.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Spectrins are a family of filamentous cytoskeletal proteins that function as essential scaffold proteins that stabilize the plasma membrane and organize intracellular organelles. Spectrins are composed of alpha and beta dimers that associate to form tetramers linked in a head-to-head arrangement. This gene encodes an alpha spectrin that is specifically expressed in nonerythrocytic cells. The encoded protein has been implicated in other cellular functions including DNA repair and cell cycle regulation. Mutations in this gene are the cause of early infantile epileptic encephalopathy-5. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2010]

Additional Information

Gene ID	6709

Other Names	SPTN1_HUMAN; SPTAN1; Alpha-II spectrin; Fodrin alpha chain; Spectrin, non-erythroid alpha subunit; NEAS; SPTA2; DEE5; DEVEP; EIEE5; HMN11; HMND11; SPG91; spectrin alpha, non-erythrocytic 1; alpha-fodrin
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=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	SPTAN1
Synonyms	NEAS, SPTA2
Function	Fodrin, which seems to be involved in secretion, interacts with calmodulin in a calcium-dependent manner and is thus candidate for the calcium-dependent movement of the cytoskeleton at the membrane.
Cellular Location	Cytoplasm, cytoskeleton. Cytoplasm, cell cortex. Note=Expressed along the cell membrane in podocytes and presumptive tubule cells during glomerulogenesis and is expressed along lateral cell margins in tubule cells.

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