Datasheet for ABIN968880

anti-SPTAN1 antibody (AA 252-371)

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Overview

Quantity:	50 µg
Target:	SPTAN1
Binding Specificity:	AA 252-371
Reactivity:	Human, Mouse, Rat, Chicken, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SPTAN1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human alpha-Spectrin II aa. 252-371
Clone:	35-alpha
Isotype:	IgG1
Cross-Reactivity:	Dog (Canine), Chicken
No Cross-Reactivity:	Rat (Rattus), Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	SPTAN1
Alternative Name:	alpha-Spectrin II (SPTAN1 Products)
Background:	Spectrins are central components of the cytoskeleton that form a scaffold below the plasma membrane. Spectrins contain two subunits, alpha and beta, which intertwine to form heterodimers that can self associate into elongated tetramers. alpha-spectin I and beta-spectrin I form heterodimers in red blood cells, while nonerythroid mammalian cells contain heterodimers of alpha-spectin I and II with beta-spectrin I to V. The structure of spectrins includes a succession of triple-helical repeats along with various domains, such as SH3 domain, EF hands, PH domains, and binding domains for ankyrin, actin, band 4.1, and calmodulin. alpha-spectrin II is a widely expressed non-erythroid alpha-spectrin that contains an SH3 domain, a calmodulin binding site, and two cleavage sites for proteases, such as calpains and caspase-3. beta-spectrin II is a widely expressed non-erythroid beta-spectrin that contains a C-terminal region that interacts with alpha-spectrins and a PH domain. alpha-spectrin II and beta-spectrin II, like many other spectrins, can form heterodimers that can self associate into tetramers, as well as interact with Band 4.1, F-actin, and other proteins near the plasma membrane. This scaffold of cytoskeletal and plasma membrane proteins is critical for the maintenance of cell structure.
Molecular Weight:	250 kDa
Pathways:	Caspase Cascade in Apoptosis, Regulation of Actin Filament Polymerization

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

Nicolas, Fournier, Galand, Malbert-Colas, Bournier, Kroviarski, Bourgeois, Camonis, Dhermy, Grandchamp, Lecomte: "Tyrosine phosphorylation regulates alpha II spectrin cleavage by calpain." in: **Molecular and cellular biology**, Vol. 22, Issue 10, pp. 3527-36, (2002) (PubMed).

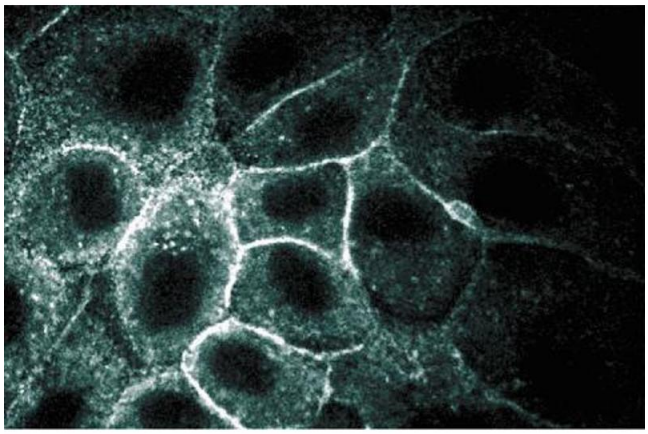
Hu, Watanabe, Bennett: "Characterization of human brain cDNA encoding the general isoform of beta-spectrin." in: **The Journal of biological chemistry**, Vol. 267, Issue 26, pp. 18715-22, (1992) (PubMed).

Moon, McMahon: "Generation of diversity in nonerythroid spectrins. Multiple polypeptides are predicted by sequence analysis of cDNAs encompassing the coding region of human nonerythroid alpha-spectrin." in: **The Journal of biological chemistry**, Vol. 265, Issue 8, pp. 4427-33, (1990) (PubMed).

Images

Western Blotting

Image 1. Western blot analysis of alpha-Spectrin II on Jurkat cell lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of alpha-Spectrin II antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of MDCK cells.