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anti-SPTBN1 antibody (AA 2101-2189)

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Overview

Quantity:	50 μg
Target:	SPTBN1
Binding Specificity:	AA 2101-2189
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SPTBN1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human beta-Spectrin II aa. 2101-2189
Clone:	42-B
Isotype:	lgG1
Cross-Reactivity:	Dog (Canine), Mouse (Murine), Rat (Rattus)
Characteristics:	 Since applications vary, each investigator should titrate the reagent to obtain optimal results. 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.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

chromatography.

Target Details

Target:	SPTBN1
Alternative Name:	beta-Spectrin II (SPTBN1 Products)
Background:	Spectrins are central components of the cytoskeleton that form a scaffold below the plasma
	membrane. Spectrins contain two subunits, alpha and ß, which intertwine to form heterodimers
	that can self associate into elongated tetramers. alpha-spectin I and ß-spectrin I form
	heterodimers in red blood cells, while nonerythroid mammalian cells contain heterodimers of
	alpha-spectin I and II with ß-spectrin I to V. The structure of spectrins includes a succession of
	triple-helical repeats alongwith 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. ß-spectrin II is a widely
	expressed non-erythroid β-spectrin that contains a C-terminal region that interacts with alpha-
	spectrins and a PH domain. alpha-spectrin II and ß-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. This antibody is routinely
	tested by the Western blot analysis.
Molecular Weight:	280 kDa
Pathways:	Regulation of Actin Filament Polymerization, Protein targeting to Nucleus
Application Details	
Application Notes:	For western blot analysis use at 1:1000.
Comment:	Related Products: ABIN968537
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

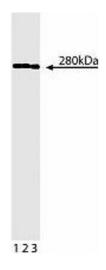
Product cited in:

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).

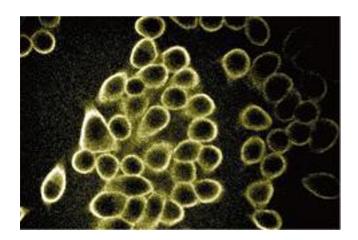
Moon, McMahon: "Generation of diversity in nonerythroid spectrins. Multiple polypeptides are predicted by sequence analysis of cDNAs encompassing the coding region of human nonerythroid alpha-spectrin." in: **The Journal of biological chemistry**, Vol. 265, Issue 8, pp. 4427-33, (1990) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of beta-Spectrin II on Jurkat lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of beta-Spectrin II.



Immunofluorescence

Image 2. Immunofluorescent staining of Hela cells grown on microscope slides with beta-Spectrin II monoclonal antibody.