



Mouse anti-Human β -Spectrin II monoclonal antibody, clone 53 (CABT-B9368)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human β -Spectrin II aa. 2101-2189
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Mouse, Rat, Dog
Clone	53
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 μ g/ml
Size	50 μ g, 150 μ g
Buffer	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.
Storage	Store undiluted at -20°C .

BACKGROUND

Introduction Spectrins are central components of the cytoskeleton that form a scaffold below the plasma

membrane. Spectrins contain two subunits, α and β , which intertwine to form heterodimers that can self associate into elongated tetramers. α -spectrin I and β -spectrin I form heterodimers in red blood cells, while nonerythroid mammalian cells contain heterodimers of α -spectrin I and II with β -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. α -spectrin II is a widely expressed non-erythroid α -spectrin that contains an SH3 domain, a calmodulin binding site, and two cleavage sites for proteases, such as calpains and caspase-3. β -spectrin II is a widely expressed non-erythroid β -spectrin that contains a C-terminal region that interacts with α -spectrins and a PH domain. α -spectrin II and β -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.

Keywords

SPTBN2; spectrin, beta, non-erythrocytic 2; SCA5; SCAR14; GTRAP41; spectrin beta chain, non-erythrocytic 2; beta-III spectrin; spectrin beta III sigma 2; spectrin beta chain, brain 2; spinocerebellar ataxia 5 protein; spectrin, non-erythroid beta chain 2; glutamate transporter EAAT4-associated protein 41;

GENE INFORMATION

Entrez Gene ID

[6712](#)

UniProt ID

[O15020](#)
