spectrin β II (42): sc-136074

BACKGROUND

Spectrin is an Actin binding protein that is a major component of the cytoskeletal superstructure of the erythrocyte plasma membrane. Spectrins function as membrane organizers and stabilizers by forming dimers, tetramers and higher polymers. Spectrin α I and spectrin β I are present in erythrocytes, whereas spectrin α II (also designated fodrin α) and spectrin β II (also designated fodrin β) are present in other somatic cells. The spectrin tetramers in erythrocytes act as barriers to lateral diffusion, but spectrin dimers seem to lack this function. Spectrin β II, which is involved in secretion, interacts with calmodulin in a calcium-dependent manner and is thus a candidate for the calcium-dependent movement of the cytoskeleton at the membrane. The human SPTBN1 gene encodes the nonerythroid form of β-spectrin.

CHROMOSOMAL LOCATION

Genetic locus: SPTBN1 (human) mapping to 2p16.2; Sptbn1 (mouse) mapping to 11 A3.3.

SOURCE

spectrin β II (42) is a mouse monoclonal antibody raised against amino acids 2101-2189 of spectrin β II of human origin.

PRODUCT

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

spectrin β II (42) is recommended for detection of spectrin β II of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range: 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for spectrin β II siRNA (h): sc-36551, spectrin β II siRNA (m2): sc-270043, spectrin β II shRNA Plasmid (h): sc-36551-SH, spectrin β II shRNA Plasmid (m2): sc-270043-SH, spectrin β II shRNA (h) Lentiviral Particles: sc-36551-V and spectrin β II shRNA (m2) Lentiviral Particles: sc-270043-V.

Molecular Weight of spectrin β II: 240/270 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or SK-N-SH cell lysate: sc-2410.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048, 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml), 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

spectrin β II (42): sc-136074. Western blot analysis of spectrin β II expression in Jurkat (A), HeLa (B), SK-N-SH (C) and A2058 (B) whole cell lysates and mouse brain (E) and rat brain (F) tissue extracts.

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.