

spectrin α II (H-105): sc-28270

BACKGROUND

Spectrin, an actin binding protein that is a major component of the cytoskeletal superstructure of the erythrocyte plasma membrane, is essential in determining the properties of the membrane, including its shape and deformability. Spectrins function as membrane organizers and stabilizers, composed of non-homologous α and β chains, which aggregate side-to-side in an anti-parallel fashion to form 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. Activation of calpain results in the breakdown of spectrin α II, a neuronal cytoskeleton protein.

CHROMOSOMAL LOCATION

Genetic locus: SPTAN1 (human) mapping to 9q34.11; Spna2 (mouse) mapping to 2 B.

SOURCE

spectrin α II (H-105) is a rabbit polyclonal antibody raised against amino acids 2368-2472 mapping at the C-terminus of spectrin α II of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PROTOCOLS

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

APPLICATIONS

spectrin α II (H-105) is recommended for detection of spectrin α II of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

spectrin α II (H-105) is also recommended for detection of spectrin α II in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for spectrin α II siRNA (h): sc-36549, spectrin α II siRNA (m): sc-36550, spectrin α II shRNA Plasmid (h): sc-36549-SH, spectrin α II shRNA Plasmid (m): sc-36550-SH, spectrin α II shRNA (h) Lentiviral Particles: sc-36549-V and spectrin α II shRNA (m) Lentiviral Particles: sc-36550-V.

Molecular Weight of spectrin α II precursor: 240 kDa.

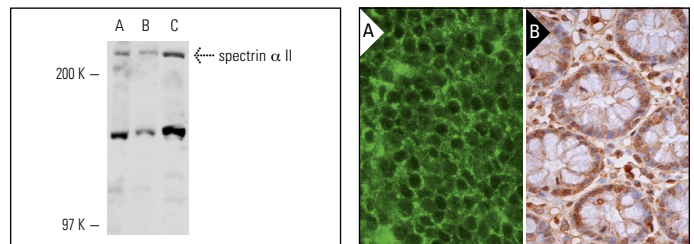
Molecular Weight of spectrin α II cleavage products: 150/120/110 kDa.

Positive Controls: WI-38 cell lysate: sc-364260, SK-N-SH cell lysate: sc-2410 or rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



spectrin α II (H-105): sc-28270. Western blot analysis of spectrin α II expression in WI-38 (A) and SK-N-SH (B) whole cell lysates and rat brain tissue extract (C).

spectrin α II (H-105): sc-28270. Immunofluorescence staining of normal mouse spleen frozen section showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear and cytoplasmic staining of glandular cells and endothelial cells (B).

SELECT PRODUCT CITATIONS

- Weinkauf, M., et al. 2009. 2-D PAGE-based comparison of proteasome inhibitor bortezomib in sensitive and resistant mantle cell lymphoma. *Electrophoresis* 30: 974-986.

STORAGE

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

RESEARCH USE

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


 MONOS
Satisfaction
Guaranteed

Try **spectrin α II (C-3): sc-48382** or **spectrin α II (B-2): sc-376849**, our highly recommended monoclonal alternatives to spectrin α II (H-105). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **spectrin α II (C-3): sc-48382**.