SANTA CRUZ BIOTECHNOLOGY, INC.

Adducin β (H-120): sc-25732

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adducins are a family of cytoskeleton proteins encoded by three genes (α, β and γ). Adducin is a protein associated with the inner leaflet of the plasma membrane and is one of the proteins localized at the spectrin-Actin junction of the membrane skeleton. The cortical Actin cytoskeletal network is lost during apoptosis and adducins are central in the cortical Actin network organization. Adducin α is a cytoskeletal protein involved with sodium-pump activity in the renal tubule and is associated with hypertension. The expression of Adducin α and Adducin γ is ubiquitous in contrast to the restricted expression of Adducin β. Adducin β is expressed at high levels in brain and hematopoietic tissues, such as bone marrow in humans, and spleen in mice.

REFERENCES

1. Chapline, C., et al. 1993. Interaction cloning of protein kinase C substrates. J. Biol. Chem. 268: 6858-6861.
2. Burns, M.E., et al. 1998. Rabphilin-3A: a multifunctional regulator of synaptic vesicle traffic. J. Gen. Physiol. 111: 243-255.
3. Gilligan, D.M., et al. 1999. Targeted disruption of the Adducin β gene (Add2) causes red blood cell spherocytosis in mice. Proc. Natl. Acad. Sci. USA 96: 10717-10722.

CHROMOSOMAL LOCATION

Genetic locus: ADD2 (human) mapping to 2p13; Add2 (mouse) mapping to 6 D1.

SOURCE

Adducin β (H-120) is a rabbit polyclonal antibody raised against amino acids 581-700 mapping near the C-terminus of Adducin β of human origin.

PRODUCT

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

APPLICATIONS

Adducin β (H-120) is recommended for detection of Adducin β of mouse, rat and human 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)], 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).

Suitable for use as control antibody for Adducin siRNA β (h): sc-37060, Adducin β siRNA (m): sc-37061, Adducin β shRNA Plasmid (h): sc-37060-SH, Adducin β shRNA Plasmid (m): sc-37061-SH, Adducin β shRNA (h) Lentiviral Particles: sc-37060-V and Adducin β shRNA (m) Lentiviral Particles: sc-37061-V.

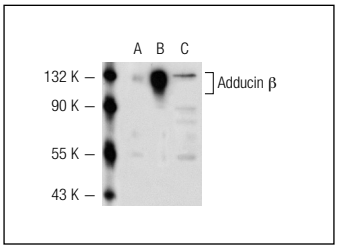
Molecular Weight of Adducin β: 97 kDa.

Positive Controls: Adducin β (h2): 293T Lysate: sc-117077, mouse spleen extract: sc-2391 or SK-N-MC cell lysate: sc-2237.

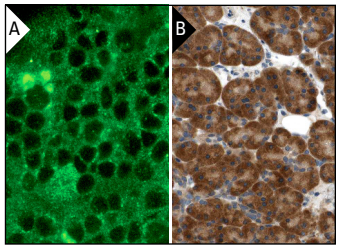
RECOMMENDED SECONDARY REAGENTS

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



Adducin β (H-120): sc-25732. Western blot analysis of Adducin β expression in non-transfected 293T: sc-117752 (**A**), human Adducin β transfected 293T: sc-117077 (**B**) and SK-N-MC (**C**) whole cell lysates.



Adducin β (H-120): sc-25732. Immunofluorescence staining of normal mouse spleen frozen section showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine pancreas cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Sahr, K.E., et al. 2009. Targeted deletion of the Adducin γ gene (Add3) in mice reveals differences in Adducin α interactions in erythroid and non-erythroid cells. Am. J. Hematol. 84: 354-361.

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.

PROTOCOLS

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