

# Adducin $\beta$ (C-16): sc-11880

## BACKGROUND

Adducins are a family of cytoskeleton proteins encoded by three genes ( $\alpha$ ,  $\beta$  and  $\gamma$ ). 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  $\alpha$  is a cytoskeletal protein involved with sodium pump activity in the renal tubule and is associated with hypertension. The expression of Adducin  $\alpha$  and Adducin  $\gamma$  is ubiquitous in contrast to the restricted expression of Adducin  $\beta$ . Adducin  $\beta$  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  $\beta$  gene (Add2) causes red blood cell spherocytosis in mice. Proc. Natl. Acad. Sci. USA 96: 10717-10722.
4. Busjahn, A., et al. 1999. Linkage but lack of association for blood pressure and the adducin  $\alpha$  locus in normotensive twins. J. Hypertens. 17: 1437-1441.
5. Muro, A.F., et al. 2000. Mild spherocytic hereditary elliptocytosis and altered levels of  $\alpha$  and  $\gamma$  adducins in adducin  $\beta$ -deficient mice. Blood 95: 3978-3985.
6. Psatry, B.M., et al. 2000. Association of the adducin  $\alpha$  polymorphism with blood pressure and risk of myocardial infarction. J. Hum. Hypertens. 14: 95-97.
7. van de Water, B., et al. 2000. Cleavage of the actin-capping protein  $\alpha$ -adducin at Asp-Asp-Ser-Asp633-Ala by caspase-3 is preceded by its phosphorylation on serine 726 in cisplatin-induced apoptosis of renal epithelial cells. J. Biol. Chem. 275: 25805-25813.

## CHROMOSOMAL LOCATION

Genetic locus: ADD2 (human) mapping to 2p13.3; Add2 (mouse) mapping to 6 D1.

## SOURCE

Adducin  $\beta$  (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Adducin  $\beta$  of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-11880 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Adducin  $\beta$  (C-16) is recommended for detection of Adducin  $\beta$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Adducin  $\beta$  (C-16) is also recommended for detection of Adducin  $\beta$  in additional species, including equine, canine, bovine and porcine.

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

Molecular Weight of Adducin  $\beta$ : 97 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237, mouse spleen extract: sc-2391 or rat brain extract: sc-2392.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

**MONOS**  
Satisfaction  
Guaranteed

Try **Adducin  $\beta$  (E-11): sc-376063**, our highly recommended monoclonal alternative to Adducin  $\beta$  (C-16).