

Adducin β (E-11): sc-376063

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

- Chapline, C., et al. 1993. Interaction cloning of protein kinase C substrates. *J. Biol. Chem.* 268: 6858-6861.
- Burns, M.E., et al. 1998. Rabphilin-3A: a multifunctional regulator of synaptic vesicle traffic. *J. Gen. Physiol.* 111: 243-255.
- Gilligan, D.M., et al. 1999. Targeted disruption of the β Adducin gene (Add2) causes red blood cell spherocytosis in mice. *Proc. Natl. Acad. Sci. USA* 96: 10717-10722.
- Busjahn, A., et al. 1999. Linkage but lack of association for blood pressure and the α -Adducin locus in normotensive twins. *J. Hypertens.* 17: 1437-1441.

CHROMOSOMAL LOCATION

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

SOURCE

Adducin β (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-51 near the N-terminus of Adducin β of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Adducin β (E-11) is available conjugated to agarose (sc-376063 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376063 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376063 PE), fluorescein (sc-376063 FITC), Alexa Fluor[®] 488 (sc-376063 AF488), Alexa Fluor[®] 546 (sc-376063 AF546), Alexa Fluor[®] 594 (sc-376063 AF594) or Alexa Fluor[®] 647 (sc-376063 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376063 AF680) or Alexa Fluor[®] 790 (sc-376063 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376063 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

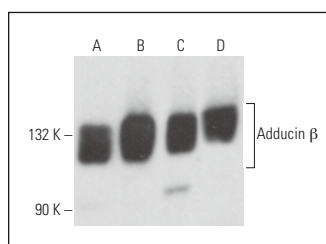
Adducin β (E-11) is recommended for detection of Adducin β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Adducin β siRNA (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.

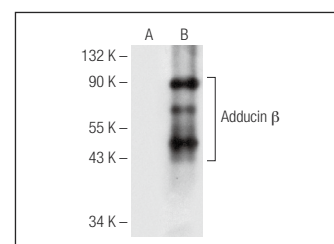
Molecular Weight of Adducin β : 97 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HUV-EC-C whole cell lysate: sc-364180 or Adducin β (h): 293T Lysate: sc-112593.

DATA



Adducin β (E-11): sc-376063. Western blot analysis of Adducin β expression in K-562 (A), HUV-EC-C (B), NTERA-2 cl.D1 (C) and A549 (D) whole cell lysates.



Adducin β (E-11): sc-376063. Western blot analysis of Adducin β expression in non-transfected: sc-117752 (A) and human Adducin β transfected: sc-112593 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Xu, T., et al. 2015. Lipid raft-associated β -Adducin is required for PSGL-1-mediated neutrophil rolling on P-Selectin. *J. Leukoc. Biol.* 97: 297-306.
- Yang, C., et al. 2018. Lipid raft-associated β -Adducin participates in neutrophil migration. *Mol. Med. Rep.* 18: 1353-1360.
- Lazic, D., et al. 2020. Every-other-day feeding exacerbates inflammation and neuronal deficits in 5XFAD mouse model of Alzheimer's disease. *Neurobiol. Dis.* 136: 104745.
- Mukherjee, K., et al. 2021. EKLF/KLF1 expression defines a unique macrophage subset during mouse erythropoiesis. *Elife* 10: e61070.
- Sequeira, M.K., et al. 2023. Cocaine and habit training cause dendritic spine rearrangement in the prefrontal cortex. *iScience* 26: 106240.

STORAGE

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

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