

Adducin α (H-100): sc-25731

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. Burns, M.E., et al. 1998. Rabphilin-3A: a multifunctional regulator of synaptic vesicle traffic. *J. Gen. Physiol.* 111: 243-255.
2. 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.
3. Busjahn, A., et al. 1999. Linkage but lack of association for blood pressure and the Adducin α locus in normotensive twins. *J. Hypertens.* 17: 1437-1441.

CHROMOSOMAL LOCATION

Genetic locus: ADD1 (human) mapping to 4p16.3; Add1 (mouse) mapping to 5 B2.

SOURCE

Adducin α (H-100) is a rabbit polyclonal antibody raised against amino acids 581-680 of Adducin α 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.

APPLICATIONS

Adducin α (H-100) is recommended for detection of Adducin α 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). Suitable for use as control antibody for Adducin α siRNA (h): sc-43253, Adducin α siRNA (m): sc-43254, Adducin α shRNA Plasmid (h): sc-43253-SH, Adducin α shRNA Plasmid (m): sc-43254-SH, Adducin α shRNA (h) Lentiviral Particles: sc-43253-V and Adducin α shRNA (m) Lentiviral Particles: sc-43254-V.

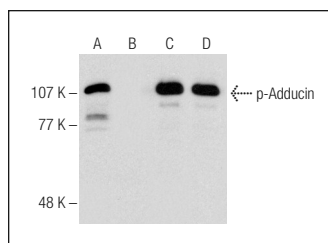
Molecular Weight of Adducin α : 120 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237, HL-60 whole cell lysate: sc-2209 or K-562 whole cell lysate: sc-2203.

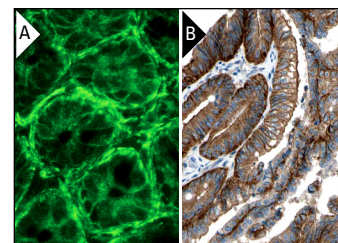
RESEARCH USE

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

DATA



Western blot analysis of Adducin phosphorylation in untreated (**A, C**) and lambda protein phosphatase (sc-200312A) treated (**B, D**) HL-60 whole cell lysates. Antibodies tested include p-Adducin (Ser 662)-R: sc-12614-R (**A, B**) and Adducin α (H-100): sc-25731 (**C, D**).



Adducin α (H-100): sc-25731. Immunofluorescence staining of normal mouse intestine frozen section showing membrane and cytoskeletal staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colorectal cancer tissue showing membrane and cytoplasmic staining of tumor cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Chen, C.L., et al. 2007. Phosphorylation of adducin by protein kinase C δ promotes cell motility. *J. Cell Sci.* 120: 1157-1167.
2. 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.
3. Khositseth, S., et al. 2011. Quantitative protein and mRNA profiling shows selective post-transcriptional control of protein expression by vasopressin in kidney cells. *Mol. Cell. Proteomics* 10: M110.004036.
4. Chen, C.L., et al. 2011. α -Adducin translocates to the nucleus upon loss of cell-cell adhesions. *Traffic* 12: 1327-1340.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Adducin α (4D1): sc-33633** or **Adducin α (A-5): sc-133079**, our highly recommended monoclonal alternatives to Adducin α (H-100).