

Adducin α (m): 293T Lysate: sc-118250

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., Sasaki, T., Takai, Y. and Augustine, G.J. 1998. Rabphilin-3A: a multifunctional regulator of synaptic vesicle traffic. *J. Gen. Physiol.* 111: 243-255.
2. Gilligan, D.M., Lozovatsky, L., Gwynn, B., Brugnara, C., Mohandas, N. and Peters, L.L. 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., Aydin, A., von Treuenfels, N., Faulhaber, H.D., Gohlke, H.R., Knoblauch, H., Schuster, H. and Luft, F.C. 1999. Linkage but lack of association for blood pressure and the Adducin α locus in normotensive twins. *J. Hypertens.* 17: 1437-1441.
4. Muro, A.F., Marro, M.L., Gajovic, S., Porro, F., Luzzatto, L. and Baralle, F.E. 2000. Mild spherocytic hereditary elliptocytosis and altered levels of Adducins α and γ in Adducin β -deficient mice. *Blood* 95: 3978-3985.
5. Psaty, B.M., Doggen, C., Vos, H.L., Vandenbroucke, J.P. and Rosendaal, F.R. 2000. Association of the Adducin α polymorphism with blood pressure and risk of myocardial infarction. *J. Hum. Hypertens.* 14: 95-97.
6. van De Water, B., Tijdens, I.B., Verbrugge, A., Huigsloot, M., Dihal, A.A., Stevens, J.L., Jaken, S. and Mulder, G.J. 2000. Cleavage of the Actin-capping protein Adducin α at DDS633A 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: Add1 (mouse) mapping to 5 B2.

PRODUCT

Adducin α (m): 293T Lysate represents a lysate of mouse Adducin α transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Adducin α (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Adducin α antibodies. Recommended use: 10-20 μ l per lane.

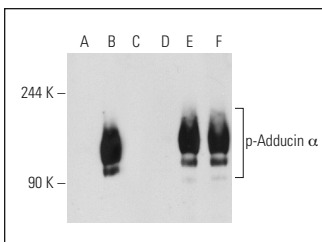
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Adducin α (4D1): sc-33633 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Adducin α expression in Adducin α transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Western blot analysis of Adducin α phosphorylation in non-transfected: sc-117752 (A,D), untreated mouse Adducin α transfected: sc-118250 (B,E) and lambda protein phosphatase treated mouse Adducin α transfected: sc-118250 (C,F) 293T whole cell lysates. Antibodies tested include p-Adducin α (Ser 726): sc-101627 (A,B,C) and Adducin α (4D1): sc-33633 (D,E,F).

RESEARCH USE

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

PROTOCOLS

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