

Annexin I (h3): 293T Lysate: sc-170574

BACKGROUND

The Annexin family of calcium-binding proteins is composed of at least ten mammalian genes and is characterized by a conserved core domain which binds phospholipids in a Ca^{2+} -dependent manner and a unique amino-terminal region which may confer binding specificity. The interaction between these proteins and biological membranes have led to the hypothesis that they are involved in cellular trafficking processes such as endocytosis, exocytosis and cellular adhesion. Annexin I, alternatively referred to as lipocortin, has been implicated as a mediator of the anti-inflammatory response produced by glucocorticoids and as an inhibitor of cPLA₂, a potent mediator of inflammation. Annexin II, also called p36, has been shown to exist as a monomer or a heterotetramer, complexed with the S-100-related protein p11. This complex is termed Calpactin I. In the tetrameric form, Annexin II is an efficient substrate of the PKC family and Src pp60.

REFERENCES

- Smith, P.D. and Moss, S.E. 1994. Structural evolution of the Annexin supergene family. *Trends Genet.* 10: 241-246.
- Hubaishy, I., Jones, P.G., Bjorge, J., Bellagamba, C., Fitzpatrick, S., Fujita, D.J. and Waisman, D.M. 1995. Modulation of Annexin II tetramer by tyrosine phosphorylation. *Biochemistry* 34: 14527-14534.
- Waisman, D.M. 1995. Annexin II tetramer: structure and function. *Mol. Cell. Biochem.* 149-150: 301-322.
- McLeod, J.D. and Bolton, C. 1995. Dexamethasone induces an increase in intracellular and membrane-associated lipocortin-1 (Annexin I) in rat astrocyte primary cultures. *Cell. Mol. Neurol.* 15: 193-205.
- Croxal, J.D., Newman, S.P., Choudhury, Q. and Flower, R.J. 1996. The concerted regulation of c-PLA₂, COX2, and lipocortin 1 expression by IL-1 β in A549 cells. *Biochem. Biophys. Res. Commun.* 220: 491-495.
- Chasserot-Golaz, S., Vitale, N., Sagot, I., Delouche, B., Dirrig, S., Pradel, L.A., Henry, J.P., Aunis, D. and Bader, M.F. 1996. Annexin II in exocytosis: catecholamine secretion requires the translocation of p36 to the subplasmalemmal region in chromaffin cells. *J. Cell Biol.* 133: 1217-1236.
- Puisieux, A., Ji, J. and Ozturk, M. 1996. Annexin II upregulates cellular levels of p11 protein by a post-translational mechanisms. *Biochem. J.* 313: 51-55.
- Mailliard, W.S., Haigler, H.T. and Schlaepfer, D.D. 1996. Calcium-dependent binding of S100C to the N-terminal domain of Annexin I. *J. Biol. Chem.* 271: 719-725.

CHROMOSOMAL LOCATION

Genetic locus: ANXA1 (human) mapping to 9q21.13.

PRODUCT

Annexin I (h3): 293T Lysate represents a lysate of human Annexin I transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Annexin I (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive Annexin I antibodies. Recommended use: 10-20 μl per lane.

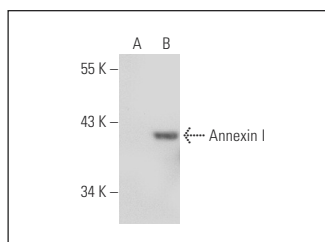
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Annexin I (EH17a): sc-12740 is recommended as a positive control antibody for Western Blot analysis of enhanced human Annexin I expression in Annexin I 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



Annexin I (EH17a): sc-12740. Western blot analysis of Annexin I expression in non-transfected: sc-117752 (A) and human Annexin I transfected: sc-170574 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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