

Annexin I (74/3): sc-65872

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 $cPLA_2$, 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

1. Smith, P.D., et al. 1994. Structural evolution of the annexin supergene family. *Trends Genet.* 10: 241-246.
2. Hubaishy, I., et al. 1995. Modulation of Annexin II tetramer by tyrosine phosphorylation. *Biochemistry* 34: 14527-14534.
3. Waisman, D.M. 1995. Annexin II tetramer: structure and function. *Mol. Cell. Biochem.* 149-150: 301-322.
4. McLeod, J.D., et al. 1995. Dexamethasone induces an increase in intracellular and membrane-associated lipocortin-1 (annexin-I) in rat astrocyte primary cultures. *Cell. Mol. Neurobiol.* 15: 193-205.
5. Croxtal, J.D., et al. 1996. The concerted regulation of $cPLA_2$, COX2, and lipocortin 1 expression by $IL-1\beta$ in A549 cells. *Biochem. Biophys. Res. Commun.* 220: 491-495.
6. Chasserot-Golaz, S., et al. 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.
7. Puisieux, A., et al. 1996. Annexin II up-regulates cellular levels of p11 protein by a posttranslational mechanisms. *Biochem. J.* 313: 51-55.
8. Mailliard, W.S., et al. 1996. Calcium-dependent binding of S-100C to the N-terminal domain of Annexin I. *J. Biol. Chem.* 271: 719-725.

CHROMOSOMAL LOCATION

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

SOURCE

Annexin I (74/3) is a mouse monoclonal antibody raised against AG1523 fibroblasts 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.

APPLICATIONS

Annexin I (74/3) is recommended for detection of Annexin I of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Annexin I siRNA (h): sc-29198, Annexin I shRNA Plasmid (h): sc-29198-SH and Annexin I shRNA (h) Lentiviral Particles: sc-29198-V.

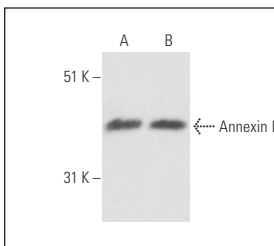
Molecular Weight of Annexin I: 35 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, K-562 whole cell lysate: sc-2203 or Annexin I (h): 293T Lysate: sc-110462.

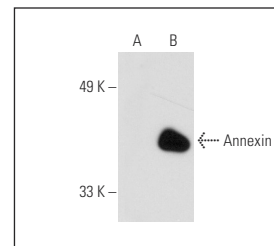
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Annexin I (74/3): sc-65872. Western blot analysis of Annexin I expression in ECV304 (A) and K-562 (B) whole cell lysates.



Annexin I (74/3): sc-65872. Western blot analysis of Annexin I expression in non-transfected: sc-117752 (A) and human Annexin I transfected: sc-110462 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mitra, B., et al. 2019. Hepatitis B virus precore protein p22 inhibits interferon- α signaling by blocking Stat nuclear translocation. *J. Virol.* 93: e00196-19.

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.

CONJUGATES

See **Annexin I (EH17a): sc-12740** for Annexin I antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.