

# Annexin I (ANEX 5E4/1): sc-53158

## 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<sub>2</sub>, 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. and Moss, S.E. 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. and Bolton, C. 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. Croxal, J.D., et al. 1996. The concerted regulation of cPLA<sub>2</sub>, 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 post-translational mechanisms. *Biochem. J.* 313: 51-55.
8. Mailliard, W.S., et al. 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.

## SOURCE

Annexin I (ANEX 5E4/1) is a mouse monoclonal antibody raised against Mixture of native membrane proteins from bone tissues of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

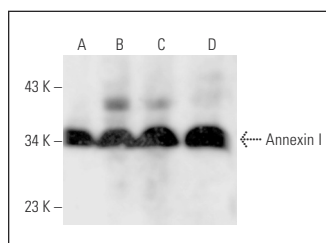
Annexin I (ANEX 5E4/1) is recommended for detection of Annexin I of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

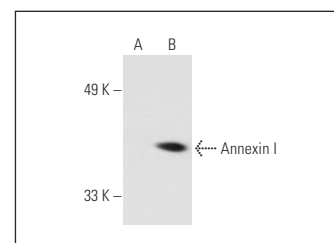
Molecular Weight of Annexin I: 35 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, U-937 cell lysate: sc-2239 or Annexin I (h): 293T Lysate: sc-110462.

## DATA



Annexin I (ANEX 5E4/1): sc-53158. Western blot analysis of Annexin I expression in SK-N-SH (A), K-562 (B), U-937 (C) and PC-3 (D) whole cell lysates.



Annexin I (ANEX 5E4/1): sc-53158. 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. Herbert, S.P., et al. 2007. The confluence-dependent interaction of cytosolic phospholipase A2- $\alpha$  with annexin A1 regulates endothelial cell prostaglandin E2 generation. *J. Biol. Chem.* 282: 34468-34478.
2. Lai, T., et al. 2018. Annexin A1 is elevated in patients with COPD and affects lung fibroblast function. *Int. J. Chron. Obstruct. Pulmon. Dis.* 13: 473-486.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CONJUGATES

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