

# Annexin I (ANEX 6E4/3): sc-53159

## 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  $\text{Ca}^{2+}$ -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  $\text{cPLA}_2$ , 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

- Smith, P.D. and Moss, S.E. 1994. Structural evolution of the Annexin supergene family. *Trends Genet.* 10: 241-246.
- Hubaishy, I., et al. 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., et al. 1996. The concerted regulation of  $\text{cPLA}_2$ , COX2, and lipocortin 1 expression by IL-1 $\beta$  in A549 cells. *Biochem. Biophys. Res. Commun.* 220: 491-495.
- 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Annexin I (ANEX 6E4/3) is a mouse monoclonal antibody raised against Mixture of native membrane proteins from bone tissues of human origin.

## PRODUCT

Each vial contains 200  $\mu\text{g}$  IgG $_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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.

## APPLICATIONS

Annexin I (ANEX 6E4/3) 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  $\mu\text{g}$  per 100-500  $\mu\text{g}$  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.

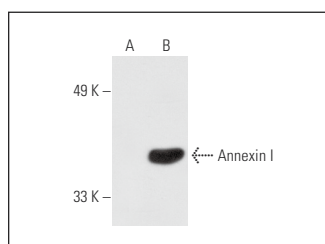
Molecular Weight of Annexin I: 35 kDa.

Positive Controls: Annexin I (h): 293T Lysate: sc-110462 or A549 cell lysate: sc-2413.

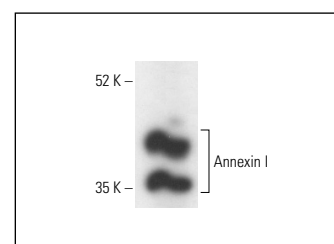
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Annexin I (ANEX 6E4/3): sc-53159. 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.



Annexin I (ANEX 6E4/3): sc-53159. Western blot analysis of Annexin I expression in A549 whole cell lysate. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

## SELECT PRODUCT CITATIONS

- Kanlaya, R. and Thongboonkerd, V. 2022. Persistent *Escherichia coli* infection in renal tubular cells enhances calcium oxalate crystal-cell adhesion by inducing ezrin translocation to apical membranes via Rho/ROCK pathway. *Cell. Mol. Life Sci.* 79: 381.



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.