

# Annexin II (K-13): sc-30759

## 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 has 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, exists as a monomer or as 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 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.
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- 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. Neurobiol.* 15: 193-205.
- Croxal, J.D., et al. 1996. The concerted regulation of cPLA<sub>2</sub>, Cox-2, 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.
- Puisieux, A., et al. 1996. Annexin II upregulates cellular levels of p11 protein by a posttranslational mechanisms. *Biochem. J.* 313: 51-55.

## CHROMOSOMAL LOCATION

Genetic locus: ANXA2 (human) mapping to 15q22.2; Anxa2 (mouse) mapping to 9 C.

## SOURCE

Annexin II (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Annexin II of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-30759 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Annexin II (K-13) is recommended for detection of Annexin II of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Annexin II siRNA (h2): sc-270151, Annexin II siRNA (m): sc-29683, Annexin II shRNA Plasmid (h2): sc-270151-SH, Annexin II shRNA Plasmid (m): sc-29683-SH, Annexin II shRNA (h2) Lentiviral Particles: sc-270151-V and Annexin II shRNA (m) Lentiviral Particles: sc-29683-V.

Molecular Weight of Annexin II monomer: 36 kDa.

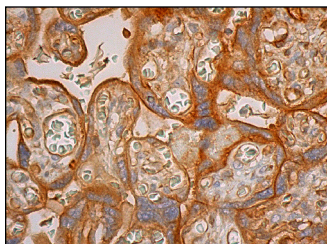
Molecular Weight of Annexin II heterotetramer: 90 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, KNRK whole cell lysate: sc-2214 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Annexin II (K-13): sc-30759. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of trophoblastic cells.

## 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.