

# p-Annexin II (11.Tyr 24): sc-135752

## 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  $cPLA_2$ , 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. Annexin II is subject to phosphorylation on specific amino acid residues, such as Tyr 24.

## CHROMOSOMAL LOCATION

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

## SOURCE

p-Annexin II (11.Tyr 24) is a mouse monoclonal antibody raised against a short amino acid sequence containing Tyr 24 phosphorylated Annexin II of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> 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.

## APPLICATIONS

p-Annexin II (11.Tyr 24) is recommended for detection of Tyr 24 phosphorylated Annexin II of mouse, rat and 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 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 p-Annexin II monomer: 36 kDa.

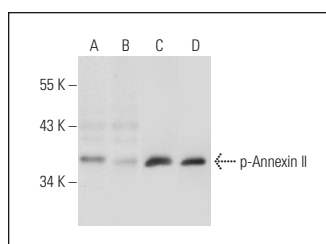
Molecular Weight of p-Annexin II heterotetramer: 90 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, IMR-32 cell lysate: sc-2409 or PC-3 cell lysate: sc-2220.

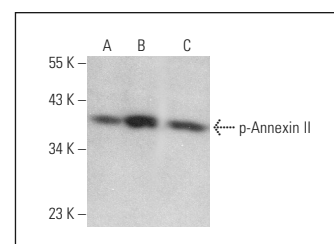
## RECOMMENDED SUPPORT REAGENTS

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, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A 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



Western blot analysis of Annexin II phosphorylation in untreated (A, C), and lambda protein phosphatase treated (B, D) A-431 whole cell lysates. Antibodies tested include p-Annexin II (11.Tyr 24): sc-135752 (A, B) and Annexin II (H-50): sc-9061 (C, D).



p-Annexin II (11.Tyr 24): sc-135752. Western blot analysis of Annexin II phosphorylation in A-431 (A), IMR-32 (B) and PC-3 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Chung, B.M., et al. 2012. Identification of novel interaction between Annexin A<sub>2</sub> and keratin 17: evidence for reciprocal regulation. *J. Biol. Chem.* 287: 7573-7581.
- Tristante, E., et al. 2015. Association of a characteristic membrane pattern of Annexin A<sub>2</sub> with high invasiveness and nodal status in colon adenocarcinoma. *Transl. Res.* 166: 196-206.
- Zhang, M., et al. 2018. Annexin A<sub>2</sub> positively regulates milk synthesis and proliferation of bovine mammary epithelial cells through the mTOR signaling pathway. *J. Cell. Physiol.* 233: 2464-2475.
- Yi, Y., et al. 2018. Cancer-associated fibroblasts promote epithelial-mesenchymal transition and EGFR-TKI resistance of non-small cell lung cancers via HGF/IGF-1/ANXA2 signaling. *Biochim. Biophys. Acta* 1864: 793-803.
- Zhang, Y., et al. 2018. ANXA2 could act as a moderator of EGFR-directed therapy resistance in triple negative breast cancer. *Biosci. Biotechnol. Biochem.* 82: 1733-1741.

## RESEARCH USE

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

## PROTOCOLS

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