

Annexin II (E-11): sc-166762

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.

CHROMOSOMAL LOCATION

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

SOURCE

Annexin II (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 315-339 at the C-terminus of Annexin II of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166762 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Annexin II (E-11) is recommended for detection of Annexin II of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Annexin II (E-11) is also recommended for detection of Annexin II in additional species, including equine, canine, bovine and porcine.

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.

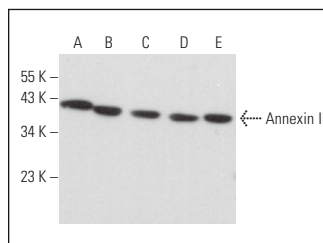
Molecular Weight of Annexin II monomer: 36 kDa.

Molecular Weight of Annexin II heterotetramer: 90 kDa.

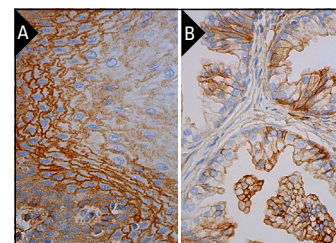
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Annexin II (E-11): sc-166762. Western blot analysis of Annexin II expression in SH-SY5Y (A), T98G (B), c4 (C), EOC 20 (D) and C6 (E) whole cell lysates.



Annexin II (E-11): sc-166762. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing membrane and cytoplasmic staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing membrane and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Bystrycky, B., et al. 2017. Relationship between circulating tumor cells and annexin A2 in early breast cancer patients. *Anticancer Res.* 37: 2727-2734.

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 for detailed protocols and support products.



See **Annexin II (C-10): sc-28385** for Annexin II antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.