

# Annexin IV (N-19): sc-1930

## BACKGROUND

The Annexin family of calcium-binding proteins is composed of at least ten mammalian genes. It is characterized by a conserved core domain which binds to phospholipids in a  $Ca^{2+}$ -dependent manner and a unique amino-terminal region which may confer binding specificity. Annexin family members have been implicated as regulators of such diverse processes as ion flux, endocytosis and exocytosis, and cellular adhesion. For example, the crystal structure of Annexin III has suggested a hydrophilic amino terminus with possible  $Ca^{2+}$  channel activity. Similarly, Annexin V has ion channel properties. Annexin IV, also referred to as endonexin, functions to regulate  $Cl^-$  flux by mediating calmodulin kinase II (CaMKII) activity and Annexin V has been shown to regulate PKC activity.

## CHROMOSOMAL LOCATION

Genetic locus: ANXA4 (human) mapping to 2p13.3; Anxa4 (mouse) mapping to 6 D1.

## SOURCE

Annexin IV (N-19) is available as either goat (sc-1930) or rabbit (sc-1930-R) polyclonal affinity purified antibody raised against a peptide mapping at the N-terminus of Annexin IV of rat origin.

## PRODUCT

Each vial contains either 100  $\mu$ g (sc-1930) or 200  $\mu$ g (sc-1930-R) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1930 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Annexin IV (N-19) is recommended for detection of Annexin IV 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)], 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 IV (N-19) is also recommended for detection of Annexin IV in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Annexin IV siRNA (h): sc-29684, Annexin IV siRNA (m): sc-29685, Annexin IV shRNA Plasmid (h): sc-29684-SH, Annexin IV shRNA Plasmid (m): sc-29685-SH, Annexin IV shRNA (h) Lentiviral Particles: sc-29684-V and Annexin IV shRNA (m) Lentiviral Particles: sc-29685-V.

Molecular Weight of Annexin IV: 34 kDa.

Positive Controls: Annexin IV (m): 293T Lysate: sc-118433, KNRK whole cell lysate: sc-2214 or RAW 309 Cr.1 cell lysate: sc-3814.

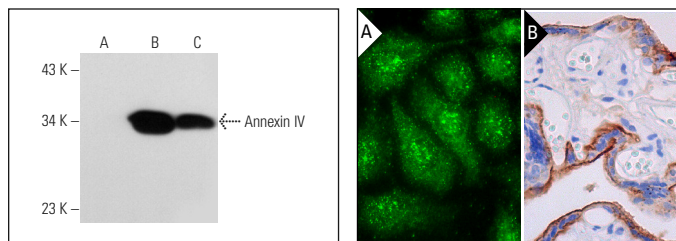
## RESEARCH USE

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

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Annexin IV (N-19): sc-1930. Western blot analysis of Annexin IV expression in non-transfected 293T: sc-117752 (A), mouse Annexin IV transfected 293T: sc-118433 (B) and KNRK (C) whole cell lysates.

Annexin IV (N-19)-R: sc-1930-R. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Annexin IV (N-19): sc-1930. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and membrane staining of trophoblastic cells (B).

## SELECT PRODUCT CITATIONS

1. Thomas, D.D., et al. 2002. Identification of Annexin VI as a  $Ca^{2+}$ -sensitive CRHSP-28-binding protein in pancreatic acinar cells. *J. Biol. Chem.* 277: 35496-35502.
2. Schaner, M.E., et al. 2003. Gene expression patterns in ovarian carcinomas. *Mol. Biol. Cell* 14: 4376-4386.
3. Pisitkun, T., et al. 2006. High-throughput identification of IMCD proteins using LC-MS/MS. *Physiol. Genomics* 25: 263-276.
4. Ponnampalam, A.P., et al. 2006. Cyclic changes and hormonal regulation of Annexin IV mRNA and protein in human endometrium. *Mol. Hum. Reprod.* 12: 661-669.
5. Yu, M.J., et al. 2008. Large-scale quantitative LC-MS/MS analysis of detergent-resistant membrane proteins from rat renal collecting duct. *Am. J. Physiol. Cell Physiol.* 295: C661-C678.
6. Kim, A., et al. 2009. Enhanced expression of Annexin A4 in clear cell carcinoma of the ovary and its association with chemoresistance to carboplatin. *Int. J. Cancer* 125: 2316-2322.
7. Madureira, P.A., et al. 2011. Annexin A2 is a novel cellular redox regulatory protein involved in tumorigenesis. *Oncotarget* 2: 1075-1093.
8. Lin, L.L., et al. 2012. *Helicobacter pylori* disrupts host cell membranes, initiating a repair response and cell proliferation. *Int. J. Mol. Sci.* 13: 10176-10192.

**MONOS**  
Satisfaction  
Guaranteed

Try **Annexin IV (D-2): sc-46693** or **Annexin IV (H-2): sc-374254**, our highly recommended monoclonal alternatives to Annexin IV (N-19).