SANTA CRUZ BIOTECHNOLOGY, INC.

Annexin I (EH17a): sc-12740

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 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 $cPLA_2$, 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.

CHROMOSOMAL LOCATION

Genetic locus: ANXA1 (human) mapping to 9q21.13; Anxa1 (mouse) mapping to 19 B.

SOURCE

Annexin I (EH17a) is a mouse monoclonal antibody raised against paritially purified Annexin 1 from human polymorphonuclear leukocytes.

PRODUCT

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

Annexin I (EH17a) is available conjugated to agarose (sc-12740 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-12740 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-12740 PE), fluorescein (sc-12740 FITC), Alexa Fluor® 488 (sc-12740 AF488), Alexa Fluor® 546 (sc-12740 AF546), Alexa Fluor® 594 (sc-12740 AF594) or Alexa Fluor® 647 (sc-12740 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-12740 AF680) or Alexa Fluor® 790 (sc-12740 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Annexin I (EH17a) is recommended for detection of Annexin I of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Annexin I (EH17a) is also recommended for detection of Annexin I in additional species, including bovine.

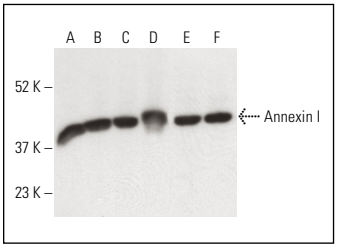
Suitable for use as control antibody for Annexin I siRNA (h): sc-29198, Annexin I siRNA (m): sc-29682, Annexin I shRNA Plasmid (h): sc-29198-SH, Annexin I shRNA Plasmid (m): sc-29682-SH, Annexin I shRNA (h) Lentiviral Particles: sc-29198-V and Annexin I shRNA (m) Lentiviral Particles: sc-29682-V.

Molecular Weight of Annexin I: 35 kDa.

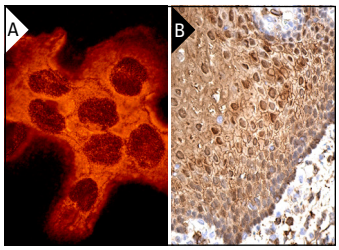
STORAGE

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

DATA



Annexin I (EH17a): sc-12740. Western blot analysis of Annexin I expression in A-431 (**A**), K-562 (**B**), Caki-1 (**C**), PC-3 (**D**), U-87 MG (**E**) and BJ (**F**) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



Annexin I (EH17a): sc-12740. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing membrane, cytoplasmic and nuclear staining of squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Levresse, V., et al. 2002. Regulation of platinum-compound cytotoxicity by the c-Jun N-terminal kinase and c-Jun signaling pathway in small-cell lung cancer cells. Mol. Pharmacol. 62: 689-697.
2. Garcia-Manteiga, J.M., et al. 2015. REST-governed gene expression profiling in a neuronal cell model reveals novel direct and indirect processes of repression and up-regulation. Front. Cell. Neurosci. 9: 438.
3. Xiong, Q., et al. 2016. Investigation of proteome changes in osteoclastogenesis in low serum culture system using quantitative proteomics. Proteome Sci. 14: 8.
4. Lorey, M.B., et al. 2017. Global characterization of protein secretion from human macrophages following non-canonical caspase-4/5 inflammasome activation. Mol. Cell. Proteomics 16: S187-S199.
5. Cuadrado, E., et al. 2018. Proteomic analyses of human regulatory T cells reveal adaptations in signaling pathways that protect cellular identity. Immunity 48: 1046-1059.e6.
6. Li, X., et al. 2019. A novel cell-penetrating peptide protects against neuron apoptosis after cerebral ischemia by inhibiting the nuclear translocation of Annexin A1. Cell Death Differ. 26: 260-275.
7. Cui, J., et al. 2020. RNA-sequencing-based transcriptomic analysis reveals a role for Annexin A1 in classical and influenza a virus-induced autophagy. Cells 9: 1399.
8. Almiñana, C., et al. 2021. Isolation and characterization of equine uterine extracellular vesicles: a comparative methodological study. Int. J. Mol. Sci. 22: 979.

RESEARCH USE

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