

Annexin V (130): sc-32321

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. 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. Annexin V is ubiquitously expressed at high levels in tissues and cells grown in tissue culture, while Annexin VIII exhibits a more limited distribution. Where co-expressed in the same tissues, Annexin VIII is often expressed at a 100-fold lower level than Annexin V. However, Annexin VIII is preferentially expressed in acute promyelocytic leukemia (APL) cells which may relate to its role in hematopoietic cell differentiation.

CHROMOSOMAL LOCATION

Genetic locus: ANXA5 (human) mapping to 4q27; Anxa5 (mouse) mapping to 3 B.

SOURCE

Annexin V (130) is a mouse monoclonal antibody raised against recombinant Annexin V of chicken origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Annexin V (130) is available conjugated to agarose (sc-32321 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-32321 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32321 PE), fluorescein (sc-32321 FITC), Alexa Fluor® 488 (sc-32321 AF488), Alexa Fluor® 546 (sc-32321 AF546), Alexa Fluor® 594 (sc-32321 AF594) or Alexa Fluor® 647 (sc-32321 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32321 AF680) or Alexa Fluor® 790 (sc-32321 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Annexin V (130) is recommended for detection of Annexin V of human, avian and, to a lesser extent, mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Annexin V siRNA (h): sc-29686, Annexin V siRNA (m): sc-29687, Annexin V shRNA Plasmid (h): sc-29686-SH, Annexin V shRNA Plasmid (m): sc-29687-SH, Annexin V shRNA (h) Lentiviral Particles: sc-29686-V and Annexin V shRNA (m) Lentiviral Particles: sc-29687-V.

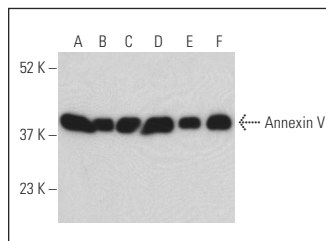
Molecular Weight of Annexin V: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, ECV304 cell lysate: sc-2269 or Hep G2 cell lysate: sc-2227.

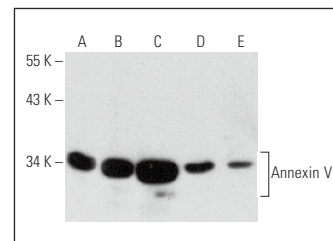
STORAGE

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

DATA



Annexin V (130): sc-32321. Western blot analysis of Annexin V expression in ECV304 (A), Hep G2 (B), MDA-MB-231 (C), HUV-EC-C (D), U-87 MG (E) and HeLa (F) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



Annexin V (130): sc-32321. Western blot analysis of Annexin V expression in ECV304 (A), Hep G2 (B), MDA-MB-435S (C), LADMAC (D) and Sol8 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Ravassa, S., et al. 2007. Upregulation of myocardial Annexin A5 in hypertensive heart disease: association with systolic dysfunction. *Eur. Heart J.* 28: 2785-2791.
- Cao, Z., et al. 2011. Proteomic analysis of chicken embryonic trachea and kidney tissues after infection in ovo by avian infectious bronchitis coronavirus. *Proteome Sci.* 9: 11.
- Cao, Z., et al. 2012. Proteomics analysis of differentially expressed proteins in chicken trachea and kidney after infection with the highly virulent and attenuated coronavirus infectious bronchitis virus *in vivo*. *Proteome Sci.* 10: 24.
- Baruah, J., et al. 2017. The allosteric glycogen synthase kinase-3 inhibitor NP12 limits myocardial remodeling and promotes angiogenesis in an acute myocardial infarction model. *J. Biol. Chem.* 292: 20785-20798.
- Jin, D., et al. 2018. Norcantharidin reverses cisplatin resistance and inhibits the epithelial mesenchymal transition of human non-small lung cancer cells by regulating the YAP pathway. *Oncol. Rep.* 40: 609-620.
- Hassan, A., et al. 2019. Adolescent idiopathic scoliosis associated POC5 mutation impairs cell cycle, cilia length and centrosome protein interactions. *PLoS ONE* 14: e0213269.
- Klauser, A.L., et al. 2021. Anticarcinogenic effects of odorant substances citral, citrathal R and cyclovertal on breast cancer *in vitro*. *Breast Cancer* 13: 659-673.
- Hessvik, N.P., et al. 2023. siRNA screening reveals that SNAP29 contributes to exosome release. *Cell. Mol. Life Sci.* 80: 177.

RESEARCH USE

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

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