

Annexin III (21): sc-101511

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, exocytosis and cellular adhesion. Annexin III, also known as ANXA3, Annexin A3, Lipocortin III, PAP-III (placental anticoagulant protein III), 35- α calcimedlin or ANX3, belongs to the Annexin family and contains four Annexin repeats. Annexin III exhibits a variety of functions, including anticoagulant properties, an inhibitory role towards phospholipase A2 (PLA2) and an enzymatic function, cleaving the cyclic bond of inositol 1,2-cyclic phosphate to produce inositol 1-phosphate.

REFERENCES

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- Park, J.E., et al. 2005. Annexin A3 is a potential angiogenic mediator. *Biochem. Biophys. Res. Commun.* 337: 1283-1287.
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- Köllermann, J., et al. 2008. Expression and prognostic relevance of Annexin A3 in prostate cancer. *Eur. Urol.* 54: 1314-1323.
- Harashima, M., et al. 2008. Annexin A3 expression increases in hepatocytes and is regulated by hepatocyte growth factor in rat liver regeneration. *J. Biochem.* 143: 537-545.
- Kessler, Ch., et al. 2008. Annexin A3 expression after stroke in the aged rat brain. *Rom. J. Morphol. Embryol.* 49: 27-35.

CHROMOSOMAL LOCATION

Genetic locus: ANXA3 (human) mapping to 4q21.21; Anxa3 (mouse) mapping to 5 E3.

SOURCE

Annexin III (21) is a mouse monoclonal antibody raised against recombinant Annexin III of human origin.

PRODUCT

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

APPLICATIONS

Annexin III (21) is recommended for detection of Annexin III of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 III siRNA (h): sc-89288, Annexin III siRNA (m): sc-141124, Annexin III shRNA Plasmid (h): sc-89288-SH, Annexin III shRNA Plasmid (m): sc-141124-SH, Annexin III shRNA (h) Lentiviral Particles: sc-89288-V and Annexin III shRNA (m) Lentiviral Particles: sc-141124-V.

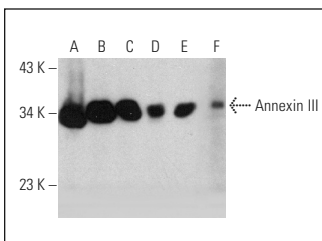
Molecular Weight of Annexin III: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

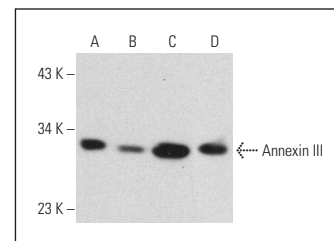
RECOMMENDED SUPPORT REAGENTS

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).

DATA



Annexin III (21): sc-101511. Western blot analysis of Annexin III expression in MCF7 (A), c4 (B), C2C12 (C), RAW 264.7 (D), AMJ2-C8 (E) and RPE-J (F) whole cell lysates.



Annexin III (21): sc-101511. Western blot analysis of Annexin III expression in Hep G2 (A), HeLa (B), MCF7 (C) and K-562 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Wang, B., et al. 2020. Identification of the downstream molecules of agrin/Dok-7 signaling in muscle. *FASEB J.* 34: 5144-5161.

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.