

Annexin VI (E-5): sc-271859

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. The annexin family has been implicated as regulators of such diverse processes as ion-flux, endocytosis and exocytosis, and cellular adhesion. When overexpressed in A-431 cells, Annexin VI causes a partial reversal of the transformed phenotype. It has been hypothesized that growth-dependent posttranslational modifications of annexins are required for proper subcellular localization. Annexin VII, also referred to as synexin, is located at the plasma membrane in normal muscle tissue. However, in muscle samples from patients suffering from Duchenne's muscular dystrophy, Annexin VII, along with Annexins IV and VI, is released into the cytoplasm and later, as the disease progresses, into the extracellular space. Two forms of Annexin XI, designated A and B, have been identified. Transfection of COS-7 cells with Annexin XI-A, but not Annexin XI-B, causes formation of Annexin XI-associated vesicles.

REFERENCES

1. Smith, P.D. and Moss, S.E. 1994. Structural evolution of the annexin supergene family. *Trends Genet.* 10: 241-246.
2. Edwards, H.C. and Moss, S.E. 1995. Functional and genetic analysis of Annexin VI. *Mol. Cell. Biochem.* 149-150: 293-299.
3. Waisman, D.M. 1995. Annexin II tetramer: structure and function. *Mol. Cell. Biochem.* 149-150: 301-322.

CHROMOSOMAL LOCATION

Genetic locus: ANXA6 (human) mapping to 5q33.1; Anxa6 (mouse) mapping to 11 B1.3.

SOURCE

Annexin VI (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 5-27 at the N-terminus of Annexin VI of human origin.

PRODUCT

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

Annexin VI (E-5) is available conjugated to agarose (sc-271859 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271859 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271859 PE), fluorescein (sc-271859 FITC), Alexa Fluor® 488 (sc-271859 AF488), Alexa Fluor® 546 (sc-271859 AF546), Alexa Fluor® 594 (sc-271859 AF594) or Alexa Fluor® 647 (sc-271859 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271859 AF680) or Alexa Fluor® 790 (sc-271859 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271859 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

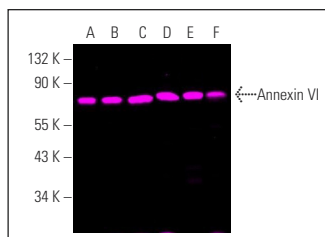
Annexin VI (E-5) is recommended for detection of Annexin VI of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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).

Suitable for use as control antibody for Annexin VI siRNA (h): sc-29688, Annexin VI siRNA (m): sc-29689, Annexin VI shRNA Plasmid (h): sc-29688-SH, Annexin VI shRNA Plasmid (m): sc-29689-SH, Annexin VI shRNA (h) Lentiviral Particles: sc-29688-V and Annexin VI shRNA (m) Lentiviral Particles: sc-29689-V.

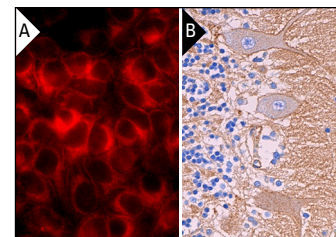
Molecular Weight of Annexin VI: 68 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, MES-SA/Dx5 cell lysate: sc-2284 or Raji whole cell lysate: sc-364236.

DATA



Annexin VI (E-5) Alexa Fluor® 546: sc-271859 AF546. Direct fluorescent western blot analysis of Annexin VI expression in MES-SA/Dx5 (A), Raji (B), CCRF-CEM (C) and U-937 (D) whole cell lysates and human cerebellum (E) and human lymph node (F) tissue extracts. Blocked with UltraCruz® Blocking Reagent.



Annexin VI (E-5): sc-271859. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing membrane staining of Purkinje cells (B).

SELECT PRODUCT CITATIONS

1. Kollau, A., et al. 2018. Modulation of nitric oxide-stimulated soluble guanylyl cyclase activity by cytoskeleton-associated proteins in vascular smooth muscle. *Biochem. Pharmacol.* 156: 168-176.
2. Bouvet, F., et al. 2020. Defective membrane repair machinery impairs survival of invasive cancer cells. *Sci. Rep.* 10: 21821.

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.