

Annexin VI (C-4): sc-365582

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, are 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., et al. 1994. Structural evolution of the annexin supergene family. *Trends Genet.* 10: 241-246.
2. Edwards, H.C., et al. 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.
4. Mailliard, W.S., et al. 1996. Calcium-dependent binding of S-100c to the N-terminal domain of Annexin I. *J. Biol. Chem.* 271: 719-725.
5. Chasserot-Golaz, S., et al. 1996. Annexin II in exocytosis: catecholamine secretion requires the translocation of p36 to the subplasmalemmal region in chromaffin cells. *J. Cell Biol.* 133: 1217-1236.
6. Selbert, S., et al. 1996. Annexin VII relocalization as a result of dystrophin deficiency. *Exp. Cell Res.* 222: 199-208.

CHROMOSOMAL LOCATION

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

SOURCE

Annexin VI (C-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 119-149 near the N-terminus of Annexin VI of human 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.

Blocking peptide available for competition studies, sc-365582 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Annexin VI (C-4) 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 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 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.

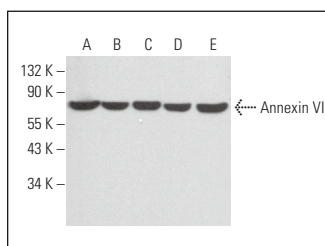
Molecular Weight of Annexin VI: 68 kDa.

Positive Controls: Annexin VI (h): 293 Lysate: sc-113205, A-10 cell lysate: sc-3806 or L6 whole cell lysate: sc-364196.

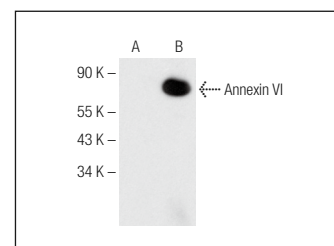
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Annexin VI (C-4): sc-365582. Western blot analysis of Annexin VI expression in Jurkat (A), Raji (B), L6 (C), A-10 (D) and Sol8 (E) whole cell lysates.



Annexin VI (C-4): sc-365582. Western blot analysis of Annexin VI expression in non-transfected: sc-110760 (A) and human Annexin VI transfected: sc-113205 (B) 293 whole cell lysates.

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.