

Annexin VIII (D-1): sc-271577

BACKGROUND

The annexin family is composed of at least ten mammalian genes that encode calcium-binding proteins. The annexin proteins are characterized by a conserved core domain, which binds to phospholipids in a calcium-dependent manner. Annexin family members have been implicated as regulators of such diverse processes as ion flux, endocytosis and exocytosis, and cellular adhesion. 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 coexpressed 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. At this time it is believed that there are duplicated copies of ANXA8-like genes on human chromosome 10q11.22 which putatively encode 3 highly similar proteins designated ANXA8L1 and ANXA8L2 (Annexin A8-like 1 and Annexin A8-like 2).

REFERENCES

1. Smith, P.D., et al. 1994. Structural evolution of the annexin supergene family. *Trends Genet.* 10: 241-246.
2. Chan, H.C., et al. 1994. Annexin IV inhibits calmodulin-dependent protein kinase II-activated chloride conductance. A novel mechanism for ion channel regulation. *J. Biol. Chem.* 269: 32464-32468.
3. Reutelingsperger, C.P., et al. 1994. Differential tissue expression of Annexin VIII in human. *FEBS Lett.* 349: 120-124.
4. Liu, J.H., et al. 1994. Expression of the Annexin VIII gene in acute promyelocytic leukemia. *Leuk. Lymphoma* 13: 381-386.
5. Rothhut, B., et al. 1995. Inhibitory effect of Annexin V on protein kinase C activity in mesangial cell lysates. *Eur. J. Biochem.* 232: 865-872.
6. 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.
7. Favier-Perron, B., et al. 1996. The high-resolution crystal structure of human Annexin III shows subtle differences with Annexin V. *Biochemistry* 35: 1740-1744.
8. Liemann, S., et al. 1996. Structural and functional characterization of the voltage sensor in the ion channel human Annexin V. *J. Mol. Biol.* 258: 555-561.

CHROMOSOMAL LOCATION

Genetic locus: ANXA8 (human) mapping to 10q11.22.

SOURCE

Annexin VIII (D-1) is a mouse monoclonal antibody raised against amino acids 121-180 mapping within an internal region of Annexin VIII of human origin.

PRODUCT

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

APPLICATIONS

Annexin VIII (D-1) is recommended for detection of Annexin VIII of 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), 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 VIII siRNA (h): sc-29692, Annexin VIII shRNA Plasmid (h): sc-29692-SH and Annexin VIII shRNA (h) Lentiviral Particles: sc-29692-V.

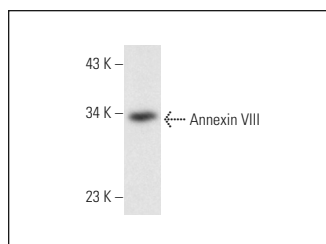
Molecular Weight of Annexin VIII: 36 kDa.

Positive Controls: Annexin VIII (h2): 293T Lysate: sc-170450, WI-38 whole cell lysate: sc-364260 or JAR cell lysate: sc-2276.

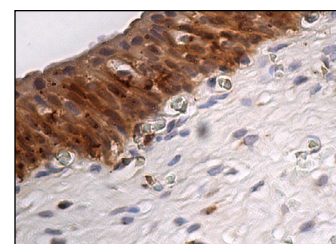
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Annexin VIII (D-1): sc-271577. Western blot analysis of Annexin VIII expression in HeLa whole cell lysate.



Annexin VIII (D-1): sc-271577. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and nuclear staining of urothelial cells.

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.