

Annexin IV (m): 293T Lysate: sc-118433

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. 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.

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. 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.
4. Mailliar, W.S., et al. 1996. Calcium-dependent binding of S100C to the N-terminal domain of annexin I. *J. Biol. Chem.* 271: 719-725.
5. 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.
6. 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: *Anxa4* (mouse) mapping to 6 D1.

PRODUCT

Annexin IV (m): 293T Lysate represents a lysate of mouse Annexin IV transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Annexin IV (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Annexin IV antibodies. Recommended use: 10-20 µl per lane.

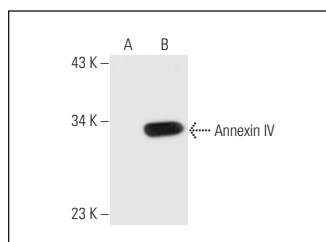
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Annexin IV (D-2): sc-46693 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Annexin IV expression in Annexin IV transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

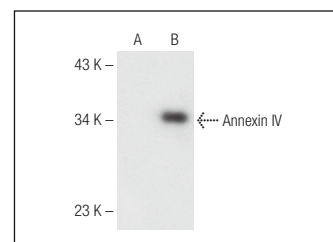
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Annexin IV (D-2): sc-46693. Western blot analysis of Annexin IV expression in non-transfected: sc-117752 (A) and mouse Annexin IV transfected: sc-118433 (B) 293T whole cell lysates.



Annexin IV (H-2): sc-374254. Western blot analysis of Annexin IV expression in non-transfected: sc-117752 (A) and mouse Annexin IV transfected: sc-118433 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.