

# Annexin A9 (F-2): sc-373934

## BACKGROUND

The annexin family of calcium-binding proteins contains several family members that are characterized by a conserved core domain, which binds phospholipids in a Ca<sup>2+</sup>-dependent manner, and a unique amino-terminal region, which may confer binding specificity. Annexin family members have been implicated as regulators of diverse processes, such as ion flux, endocytosis, exocytosis and cellular adhesion. Annexin A9 (ANXA9), also known as Annexin-31 (ANX31) or Pemphaxin, is a 345 amino acid protein that contains four Annexin domains and may act as a low affinity receptor for acetylcholine. It is an atypical member of the annexin family because its intracellular activity is not subject to Ca<sup>2+</sup> regulation as a result of sequence mutations. Annexin A9 is one of the target proteins that is recognized by autoantibodies in patients with pemphigus vulgaris, a rare autoimmune skin condition in which blisters occur in the epidermis due to loss of cell-cell adhesion.

## REFERENCES

- Goebeler, V., et al. 2003. Atypical properties displayed by Annexin A9, a novel member of the annexin family of Ca<sup>2+</sup> and lipid binding proteins. *FEBS Lett.* 546: 359-364.
- Chlystun, M., et al. 2004. Structural and functional characterisation of the mouse Annexin A9 promoter. *Biochim. Biophys. Acta* 1742: 141-149.
- Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 603319. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
- Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
- Scaffidi, P., et al. 2006. Lamin A-dependent nuclear defects in human aging. *Science* 312: 1059-1063.

## CHROMOSOMAL LOCATION

Genetic locus: Anxa9 (mouse) mapping to 3 F2.1.

## SOURCE

Annexin A9 (F-2) is a mouse monoclonal antibody raised against amino acids 101-270 mapping within an internal region of Annexin A9 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Annexin A9 (F-2) is recommended for detection of Annexin A9 of mouse and rat 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 A9 siRNA (m): sc-105071, Annexin A9 shRNA Plasmid (m): sc-105071-SH and Annexin A9 shRNA (m) Lentiviral Particles: sc-105071-V.

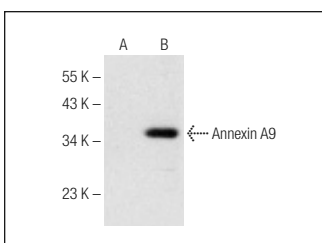
Molecular Weight of Annexin A9: 38 kDa.

Positive Controls: Annexin A9 (m): 293T Lysate: sc-118427 or rat kidney extract: sc-2394.

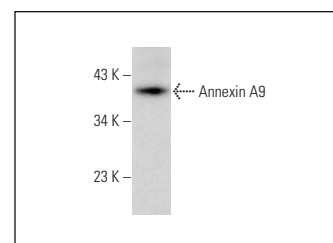
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Annexin A9 (F-2): sc-373934. Western blot analysis of Annexin A9 expression in non-transfected: sc-117752 (A) and mouse Annexin A9 transfected: sc-118427 (B) 293T whole cell lysates.



Annexin A9 (F-2): sc-373934. Western blot analysis of Annexin A9 expression in rat kidney tissue extract.

## SELECT PRODUCT CITATIONS

- Yu, S., et al. 2018. Annexin A9 promotes invasion and metastasis of colorectal cancer and predicts poor prognosis. *Int. J. Mol. Med.* 41: 2185-2192.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.