

# Annexin A13 (H-40): sc-135204

## BACKGROUND

The annexins constitute a family of structurally-related, relatively abundant proteins that exhibit Ca<sup>2+</sup>-dependent binding to phospholipids. Annexins function in multiple aspects of cell biology including regulation of membrane trafficking, transmembrane channel activity, inhibition of phospholipase A<sub>2</sub>, inhibition of coagulation and mediation of cell-matrix interactions. Annexin A13 is considered the original progenitor of the 12 members of vertebrate annexins. The expression of Annexin A13 is highly tissue-specific, being expressed only in intestinal and kidney epithelial cells. This expression is associated with a highly differentiated intracellular transport function. Two alternative splicing isoforms of Annexin A13 exist, both of which bind to rafts.

## REFERENCES

1. Smith, P.D. and Moss, S.E. 1994. Structural evolution of the annexin supergene family. *Trends Genet.* 10: 241-246.
2. Mailliard, W.S., Haigler, H.T. and Schlaepfer, D.D. 1996. Calcium-dependent binding of S100C to the N-terminal domain of Annexin I. *J. Biol. Chem.* 271: 719-725.
3. Waisman, D.M. 1996. Annexin II tetramer: structure and function. *Mol. Cell. Biochem.* 149-150: 301-322.
4. Iglesias, J.M., Morgan, R.O., Jenkins, N.A., Copeland, N.G., Gilbert, D.J. and Fernandez, M.P. 2002. Comparative genetics and evolution of Annexin A13 as the founder gene of vertebrate annexins. *Mol. Biol. Evol.* 19: 608-618.
5. Morgan, R.O., Martin-Almedina, S., Iglesias, J.M., Gonzalez-Florez, M.I. and Fernandez, M.P. 2004. Evolutionary perspective on annexin calcium-binding domains. *Biochim. Biophys. Acta* 1742: 133-140.
6. Turnay, J., Lecona, E., Fernández-Lizarbe, S., Guzmán-Aránguez, A., Fernández, M.P., Olmo, N. and Lizarbe, M.A. 2005. Structure-function relationship in Annexin A13, the founder member of the vertebrate family of annexins. *Biochem. J.* 389: 899-911.

## CHROMOSOMAL LOCATION

Genetic locus: ANXA13 (human) mapping to 8q24.13; ANXA13 (human) mapping to 15 D1.

## SOURCE

Annexin A13 (H-40) is a rabbit polyclonal antibody raised against amino acids 271-310 mapping near the C-terminus of Annexin A13 of human origin.

## PRODUCT

Each vial contains 200 µg IgG 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 A13 (H-40) is recommended for detection of Annexin A13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Annexin A13 (H-40) is also recommended for detection of Annexin A13 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Annexin A13 siRNA (h): sc-60172, Annexin A13 siRNA (m): sc-60173, Annexin A13 shRNA Plasmid (h): sc-60172-SH, Annexin A13 shRNA Plasmid (m): sc-60173-SH, Annexin A13 shRNA (h) Lentiviral Particles: sc-60172-V and Annexin A13 shRNA (m) Lentiviral Particles: sc-60173-V.

Molecular Weight of Annexin A13: 36-40 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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) or our catalog for detailed protocols and support products.