# SANTA CRUZ BIOTECHNOLOGY, INC.

# Annexin A10 (N-16): sc-70009



## 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 such diverse processes as ion flux, endocytosis, exocytosis and cellular adhesion. Annexin A10, also known as ANX14 or ANXA10, is a 324 amino acid protein that contains 4 annexin domains and may be involved in the regulation of cellular growth and signal transduction pathways throughout the cell. The gene encoding Annexin A10 maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

## REFERENCES

- 1. Smith, P.D. and Moss, S.E. 1994. Structural evolution of the annexin supergene family. Trends Genet. 10: 241-246.
- Morgan, R.O. and Fernández, M.P. 1997. Annexin gene structures and molecular evolutionary genetics. Cell. Mol. Life Sci. 53: 508-515.
- Morgan, R.O., Jenkins, N.A., Gilbert, D.J., Copeland, N.G., Balsara, B.R., Testa, J.R. and Fernandez, M.P. 1999. Novel human and mouse Annexin A10 are linked to the genome duplications during early chordate evolution. Genomics 60: 40-49.
- 4. Liu, S.H., Lin, C.Y., Peng, S.Y., Jeng, Y.M., Pan, H.W., Lai, P.L., Liu, C.L. and Hsu, H.C. 2002. Down-regulation of annexin A10 in hepatocellular carcinoma is associated with vascular invasion, early recurrence, and poor prognosis in synergy with p53 mutation. Am. J. Pathol. 160: 1831-1837.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608008. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Peng, S.Y., Ou, Y.H., Chen, W.J., Li, H.Y., Liu, S.H., Pan, H.W., Lai, P.L., Jeng, Y.M., Chen, D.C. and Hsu, H.C. 2005. Aberrant expressions of Annexin A10 short isoform, osteopontin and  $\alpha$ -fetoprotein at chromosome 4q cooperatively contribute to progression and poor prognosis of hepatocellular carcinoma. Int. J. Oncol. 26: 1053-1061.
- Mittag, J., Oehr, W., Heuer, H., Hämäläinen, T., Brachvogel, B., Pöschl, E. and Bauer, K. 2007. Expression and thyroid hormone regulation of annexins in the anterior pituitary. J. Endocrinol. 195: 385-392.

### CHROMOSOMAL LOCATION

Genetic locus: ANXA10 (human) mapping to 4q32.3; Anxa10 (mouse) mapping to 8 B3.1.

#### SOURCE

Annexin A10 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Annexin A10 of human origin.

## **RESEARCH USE**

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

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70009 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

Annexin A10 (N-16) is recommended for detection of Annexin A10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 A10 (N-16) is also recommended for detection of Annexin A10 in additional species, including equine, canine and avian.

Suitable for use as control antibody for Annexin A10 siRNA (h): sc-72503, Annexin A10 siRNA (m): sc-72504, Annexin A10 shRNA Plasmid (h): sc-72503-SH, Annexin A10 shRNA Plasmid (m): sc-72504-SH, Annexin A10 shRNA (h) Lentiviral Particles: sc-72503-V and Annexin A10 shRNA (m) Lentiviral Particles: sc-72504-V.

Molecular Weight of Annexin A10: 37 kDa.

### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **STORAGE**

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

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.