SANTA CRUZ BIOTECHNOLOGY, INC.

Annexin A10 (5-RE28): sc-134259

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^{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, exocytosis and cellular adhesion. Annexin A10, also known as ANX14 or ANXA10, is a 324 amino acid protein that contains four 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.
2. Morgan, R.O. and Fernández, M.P. 1997. Annexin gene structures and molecular evolutionary genetics. Cell. Mol. Life Sci. 53: 508-515.
3. Morgan, R.O., et al. 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., et al. 2002. Downregulation 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., et al. 2005. Aberrant expressions of Annexin A10 short isoform, osteopontin and α-fetoprotein at chromosome 4q cooperatively contribute to progression and poor prognosis of hepatocellular carcinoma. Int. J. Oncol. 26: 1053-1061.
7. Mittag, J., et al. 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.

SOURCE

Annexin A10 (5-RE28) is a mouse monoclonal antibody raised against recombinant Annexin A10 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} 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 A10 (5-RE28) is recommended for detection of Annexin A10 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

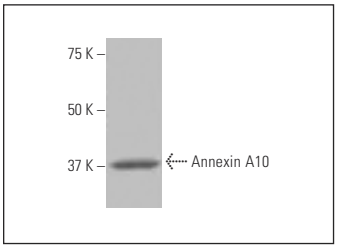
Molecular Weight of Annexin A10: 37 kDa.

Positive Controls: human placenta extract: sc-363772.

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).

DATA



Annexin A10 (5-RE28): sc-134259. Western blot analysis of Annexin A10 expression in human placenta tissue extract.

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.