SANTA CRUZ BIOTECHNOLOGY, INC.

Testisin (D-20): sc-27617

BACKGROUND

Testisin, also known as ESP-1, plays an important role in spermatogenesis and fertilization. Originally identified as a testis-specific serine protease, this 42 kDa protein may also play important regulatory roles in other biological systems linked to capillary morphogenesis and angiogenesis. Immunostaining for Testisin in round and elongating spermatids demonstrates specific staining in the cytoplasm and on the plasma membrane. The Testisin gene localizes to the short arm of human chromosome 16 (16p13.3). Alternative pre-mRNA splicing gives rise to two different isoforms. The Testisin gene is expressed in normal testis cells and not in testis tumor cell lines, but only in ovarian carcinoma and not normal ovary cells. Therefore, loss of expression in testicular cells or induction of expression in ovarian cells may play a role in the development, progression, and invasive capacity of testicular/ovarian tumors.

REFERENCES

1. Hooper, J.D., et al. 1999. Testisin, a new human serine proteinase expressed by premeiotic testicular germ cells and lost in testicular germ cell tumors. Cancer Res. 59: 3199-3205.
2. Hooper, J.D., et al. 2000. Localization, expression and genomic structure of the gene encoding the human serine protease Testisin. Biochim. Biophys. Acta 1492: 63-71.
3. Shigemasa, K., et al. 2000. Overexpression of Testisin, a serine protease expressed by testicular germ cells, in epithelial ovarian tumor cells. J. Soc. Gynecol. Investig. 7: 358-362.
4. Scarman AL, et al. 2001. Organization and chromosomal localization of the murine Testisin gene encoding a serine protease temporally expressed during spermatogenesis. Eur. J. Biochem. 268: 1250-1258.
5. Nakamura, Y., et al. 2003. Cloning, expression analysis, and tissue distribution of ESP-1/Testisin, a membrane-type serine protease from the rat. J. Med. Invest. 50: 78-86.
6. Aimes, R.T., et al. 2003. Endothelial cell serine proteases expressed during vascular morphogenesis and angiogenesis. Thromb. Haemost. 89: 561-572.

SOURCE

Testisin (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Testisin of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27617 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Testisin (D-20) is recommended for detection of precursor and mature Testisin of mouse and rat 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).

Suitable for use as control antibody for Testisin siRNA (m): sc-72137.

Molecular Weight of Testisin: 42 kDa.

Positive Controls: normal testis tissue, ovarian carcinoma tissue or mouse testes extract: sc-2405.

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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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 or our catalog for detailed protocols and support products.