

FTHL17 (N-16): sc-242867

BACKGROUND

FTHL17 (ferritin heavy polypeptide-like 17), also known as CT38 (cancer/testis antigen 38), is a 183 amino acid testis specific protein that belongs to the ferritin family and contains one ferritin-like diiron domain. The gene encoding FTHL17 maps to human chromosome Xp21.2. The human X chromosome consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development, while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited, including Turner's syndrome, Klinefelter's syndrome and Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are well-known X chromosome-linked conditions that affect males more frequently as males carry a single X chromosome.

REFERENCES

1. Wang, P.J., et al. 2001. An abundance of X-linked genes expressed in spermatogonia. *Nat. Genet.* 27: 422-426.
2. Loriot, A., et al. 2003. Five new human cancer-germline genes identified among 12 genes expressed in spermatogonia. *Int. J. Cancer* 105: 371-376.
3. Lee, S., et al. 2003. Molecular and cytogenetic characterization of two azoospermic patients with X-autosome translocation. *J. Assist. Reprod. Genet.* 20: 385-389.
4. Zhang, K., et al. 2005. Molecular cloning and characterization of three novel lysozyme-like genes, predominantly expressed in the male reproductive system of humans, belonging to the c-type lysozyme/ α -lactalbumin family. *Biol. Reprod.* 73: 1064-1071.
5. Atanackovic, D., et al. 2006. Expression of cancer-testis antigens as possible targets for antigen-specific immunotherapy in head and neck squamous cell carcinoma. *Cancer Biol. Ther.* 5: 1218-1225.
6. Augui, S., et al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. *Science* 318: 1632-1636.
7. Cocquet, J., et al. 2009. The multicopy gene Sly represses the sex chromosomes in the male mouse germline after meiosis. *PLoS Biol.* 7: e1000244.
8. Poplinski, A., et al. 2010. Severe XIST hypomethylation clearly distinguishes (SRY+) 46,XX-maleness from Klinefelter syndrome. *Eur. J. Endocrinol.* 162: 169-175.
9. Leahy, T., et al. 2011. Two-dimensional polyacrylamide gel electrophoresis of membrane proteins from flow cytometrically sorted ram sperm. *Theriogenology* 75: 962-971.

CHROMOSOMAL LOCATION

Genetic locus: FTHL17 (human) mapping to Xp21.2.

SOURCE

FTHL17 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FTHL17 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-242867 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FTHL17 (N-16) is recommended for detection of FTHL17 of 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).

Suitable for use as control antibody for FTHL17 siRNA (h): sc-90948, FTHL17 shRNA Plasmid (h): sc-90948-SH and FTHL17 shRNA (h) Lentiviral Particles: sc-90948-V.

Molecular Weight of FTHL17: 21 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) 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.

STORAGE

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

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.