SANTA CRUZ BIOTECHNOLOGY, INC.

FXNA (K-13): sc-162838

BACKGROUND

Metallopeptidases are enzymes that catalyze the hydrolysis of peptide bonds and are essential to normal physiological processes, including tissue remodeling, reproduction and embryonic development. FXNA (felix-ina), also known as ERMP1 (endoplasmic reticulum metallopeptidase 1) or KIAA1815, is a 904 amino acid metallopeptidase that belongs to the peptidase M28 protein family. FXNA is a multi-pass membrane protein that localizes to the endoplasmic reticulum membrane. FXNA binds two zinc ions and, within the ovary, is essential to the organization of oocytes and somatic cells into discrete follicular structures. The gene that encodes FXNA maps to human chromosome 9, which consists of about 145 million bases and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype.

REFERENCES

1. Nagase, T., et al. 2001. Prediction of the coding sequences of unidentified human genes. XX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 8: 85-95.
2. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. Nature 429: 369-374.
3. Garcia-Rudaz, C., et al. 2007. Fxna, a novel gene differentially expressed in the rat ovary at the time of folliculogenesis, is required for normal ovarian histogenesis. Development 134: 945-957.
4. Temtamy, S.A., et al. 2007. Phenotypic and cytogenetic spectrum of 9p trisomy. Genet. Couns. 18: 29-48.
5. Chen, R., et al. 2009. Glycoproteomics analysis of human liver tissue by combination of multiple enzyme digestion and hydrazide chemistry. J. Proteome Res. 8: 651-661.

CHROMOSOMAL LOCATION

Genetic locus: ERMP1 (human) mapping to 9p24.1; Ermp1 (mouse) mapping to 19 C1.

SOURCE

FXNA (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of FXNA 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.

Blocking peptide available for competition studies, sc-162838 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

FXNA (K-13) is recommended for detection of FXNA 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).

FXNA (K-13) is also recommended for detection of FXNA in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FXNA siRNA (h): sc-92795, FXNA siRNA (m): sc-145280, FXNA shRNA Plasmid (h): sc-92795-SH, FXNA shRNA Plasmid (m): sc-145280-SH, FXNA shRNA (h) Lentiviral Particles: sc-92795-V and FXNA shRNA (m) Lentiviral Particles: sc-145280-V.

Molecular Weight of FXNA: 100 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.

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.