SANTA CRUZ BIOTECHNOLOGY, INC.

MMGT1 (L-13): sc-240687

BACKGROUND

MMGT1 (membrane magnesium transporter 1), also known as TMEM32 (transmembrane protein 32), is a 131 amino acid single-pass type I membrane protein of the endoplasmic reticulum, Golgi apparatus and early endosome that belongs to the membrane magnesium transporter family. As such, MMGT1 mediates magnesium transport and exists as two alternatively spliced isoforms. The gene encoding MMGT1 maps to human chromosome Xq26.3. The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of a 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 which affect males more frequently as males carry a single X chromosome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MMGT1 (human) mapping to Xq26.3; Mmgt1 (mouse) mapping to X A5.

RESEARCH USE

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

SOURCE

MMGT1 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MMGT1 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-240687 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MMGT1 (L-13) is recommended for detection of MMGT1 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); non cross-reactive with murine Mmgt2.

MMGT1 (L-13) is also recommended for detection of MMGT1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MMGT1 siRNA (h): sc-90875, MMGT1 siRNA (m): sc-154456, MMGT1 shRNA Plasmid (h): sc-90875-SH, MMGT1 shRNA Plasmid (m): sc-154456-SH, MMGT1 shRNA (h) Lentiviral Particles: sc-90875-V and MMGT1 shRNA (m) Lentiviral Particles: sc-154456-V.

Molecular Weight of MMGT1 isoforms: 15/22 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.

PROTOCOLS

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