SANTA CRUZ BIOTECHNOLOGY, INC.

Magmas (H-110): sc-135226



BACKGROUND

Magmas, also known as TIMM16, is a 125 amino acid protein that localizes to the inner mitochondrial membrane and belongs to the TIM16/PAM16 family. Expressed ubiquitously, Magmas functions as a probable component of the PAM complex, a multi-protein structure that is required for the ATP-dependent translocation of peptide-containing proteins from the inner membrane membrane into the mitochondrial matrix. Specifically, Magmas may be necessary for the regulation of the ATP-dependent nature of the PAM complex. The gene encoding Magmas maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

- 1. Gilbert, F. 1999. Disease genes and chromosomes: disease maps of the human genome. Chromosome 16. Genet. Test. 3: 243-254.
- 2. Lai, C.H., Chou, C.Y., Ch'ang, L.Y., Liu, C.S. and Lin, W. 2000. Identification of novel human genes evolutionarily conserved in *Caenorhabditis elegans* by comparative proteomics. Genome Res. 10: 703-713.
- Jubinsky, P.T., Messer, A., Bender, J., Morris, R.E., Ciraolo, G.M., Witte, D.P., Hawley, R.G. and Short, M.K. 2001. Identification and characterization of Magmas, a novel mitochondria-associated protein involved in granulocyte-macrophage colony-stimulating factor signal transduction. Exp. Hematol. 29: 1392-1402.
- Jubinsky, P.T., Short, M.K., Mutema, G., Morris, R.E., Ciraolo, G.M. and Li, M. 2005. Magmas expression in neoplastic human prostate. J. Mol. Histol. 36: 69-75.
- Rakha, E.A., Green, A.R., Powe, D.G., Roylance, R. and Ellis, I.O. 2006. Chromosome 16 tumor-suppressor genes in breast cancer. Genes Chromosomes Cancer 45: 527-535.
- Gervasini, C., Castronovo, P., Bentivegna, A., Mottadelli, F., Faravelli, F., Giovannucci-Uzielli, M.L., Pessagno, A., Lucci-Cordisco, E., Pinto, A.M., Salviati, L., Selicorni, A., Tenconi, R., Neri, G. and Larizza, L. 2007. High frequency of mosaic CREBBP deletions in Rubinstein-Taybi syndrome patients and mapping of somatic and germ-line breakpoints. Genomics 90: 567-573.

CHROMOSOMAL LOCATION

Genetic locus: Magmas (human) mapping to 16p13.3; Magmas (mouse) mapping to 16 A1.

SOURCE

Magmas (H-110) is a rabbit polyclonal antibody raised against amino acids 1-110 mapping at the N-terminus of Magmas of human origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

Magmas (H-110) is recommended for detection of Magmas 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).

Magmas (H-110) is also recommended for detection of Magmas in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Magmas siRNA (h): sc-93268, Magmas siRNA (m): sc-149229, Magmas shRNA Plasmid (h): sc-93268-SH, Magmas shRNA Plasmid (m): sc-149229-SH, Magmas shRNA (h) Lentiviral Particles: sc-93268-V and Magmas shRNA (m) Lentiviral Particles: sc-149229-V.

Molecular Weight of Magmas: 13 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or Ramos cell lysate: sc-2216.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluo-rescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Magmas (H-110): sc-135226. Western blot analysis of Magmas expression in Hep G2 (**A**), HeLa (**B**) and Ramos (**C**) whole cell lysates.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.