Magmas (D-12): sc-107241



The Power to Question

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.
- 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.
- 3. 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 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-107241 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Magmas (D-12) 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 (D-12) is also recommended for detection of Magmas in additional species, including canine, bovine, porcine and avian.

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.

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.

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