SANTA CRUZ BIOTECHNOLOGY, INC.

Maspardin (Q-17): sc-83838

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Maspardin, also known as MAST, ACP33, GL010, BM-019 or SPG21 (spastic paraplegia 21 (autosomal recessive, Mast syndrome)), is a 308 amino acid cytoplasmic protein that is widely expressed. Belonging to the AB hydrolase superfamily, Maspardin colocalizes with CD4 on endosomal/*trans*-Golgi network. It is thought that Maspardin may act as a negative regulatory factor in CD4-dependent T-cell activation. Defects in the gene encoding Maspardin are the result of hereditary spastic paraplegia autosomal recessive type 21 (also designated Mast syndrome), an autosomal recessive neurodegenerative disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs. The gene encoding Maspardin is encoded by human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome.

REFERENCES

1. Cross, H.E. and McKusick, V.A. 1967. The mast syndrome. A recessively inherited form of presenile dementia with motor disturbances. Arch. Neurol. 16: 1-13.
2. Iwabuchi, K., et al. 1994. Three patients of complicated form of autosomal recessive hereditary spastic paraplegia associated with hypoplasia of the corpus callosum. No To Shinkei 46: 941-947.
3. Tanaka, M., et al. 1995. A case of complicated form of hereditary spastic paraplegia associated with hypoplasia of the corpus callosum and cataracta. Rinsho Shinkeigaku 35: 798-802.
4. Zeitlmann, L., et al. 2001. Cloning of ACP33 as a novel intracellular ligand of CD4. J. Biol. Chem. 276: 9123-9132.
5. Simpson, M.A., et al. 2003. Maspardin is mutated in mast syndrome, a complicated form of hereditary spastic paraplegia associated with dementia. Am. J. Hum. Genet. 73: 1147-1156.

CHROMOSOMAL LOCATION

Genetic locus: SPG21 (human) mapping to 15q22.31; Spg21 (mouse) mapping to 9 C.

SOURCE

Maspardin (Q-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Maspardin 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-83838 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

Maspardin (Q-17) is recommended for detection of Maspardin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Maspardin (Q-17) is also recommended for detection of Maspardin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Maspardin siRNA (h): sc-75751, Maspardin siRNA (m): sc-75752, Maspardin shRNA Plasmid (h): sc-75751-SH, Maspardin shRNA Plasmid (m): sc-75752-SH, Maspardin shRNA (h) Lentiviral Particles: sc-75751-V and Maspardin shRNA (m) Lentiviral Particles: sc-75752-V.

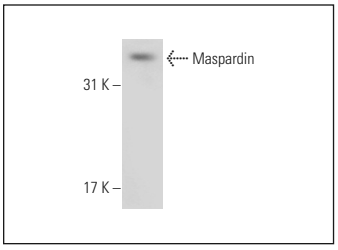
Molecular Weight of Maspardin: 33 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Maspardin (Q-17): sc-83838. Western blot analysis of Maspardin expression in HL-60 whole cell lysate.

RESEARCH USE

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