SANTA CRUZ BIOTECHNOLOGY, INC.

MG (R-19): sc-9325

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mahogany (MG), originally identified as a protein involved in pigmentation, acts in conjunction with melanocortin receptors to suppress diet-induced obesity. Mahogany contains a single transmembrane domain. It is expressed in a broad range of tissues, including the hypothalamus and pigment cells. Mutations within the mahogany gene were shown to rescue agouti-lethal-yellow mutant mice from obesity. The extracellular domain of mouse mahogany is the ortholog of the human protein attractin. Attractin (also designated DPPT-L) is a human serum glycoprotein and is a member of the CUB family of cell adhesion and guidance proteins. Attractin is expressed on activated T cells and is released from the cells 48 to 72 hours after activation.

REFERENCES

1. Miller, K.A., et al. 1997. Genetic studies of the mouse mutations mahogany and mahoganoid. Genetics 146: 1407-1415.
2. Duke-Cohan, J.S., et al. 1998. Attractin (DPPT-L), a member of the CUB family of cell adhesion and guidance proteins, is secreted by activated human T lymphocytes and modulates immune cell interactions. Proc. Natl. Acad. Sci. USA 95: 11336-11341.
3. Dinulescu, D.M., et al. 1998. Mahogany (mg) stimulates feeding and increases basal metabolic rate independent of its suppression of agouti. Proc. Natl. Acad. Sci. USA 95: 12707-12712.
4. Nagle, D.L., et al. 1999. The mahogany protein is a receptor involved in suppression of obesity. Nature 398: 148-152.
5. Gunn, T.M., et al. 1999. The mouse mahogany locus encodes a transmembrane form of human attractin. Nature 398: 152-156.

CHROMOSOMAL LOCATION

Genetic locus: ATRN (human) mapping to 20p13; Atrn (mouse) mapping to 2 F1.

SOURCE

MG (R-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MG of mouse 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-9325 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.

PROTOCOLS

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

APPLICATIONS

MG (R-19) is recommended for detection of MG 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).

MG (R-19) is also recommended for detection of MG in additional species, including canine, bovine and porcine.

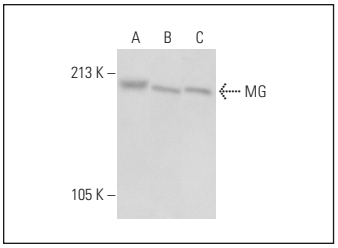
Molecular Weight of MG: 175 kDa.

Positive Control: ALL-SIL whole cell lysate: sc-364356, M1 whole cell lysate: sc-364782 or NIH/3T3 whole cell lysate: sc-2210.

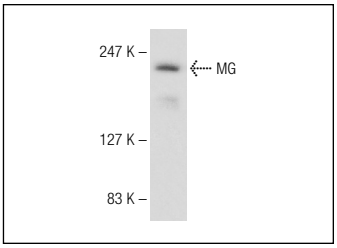
RECOMMENDED SECONDARY REAGENTS

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



MG (R-19): sc-9325. Western blot analysis of MG expression in M1 (**A**), NIH/3T3 (**B**) and RAW 264.7 (**C**) whole cell lysates.



MG (R-19): sc-9325. Western blot analysis of MG expression in ALL-SIL whole cell lysate.

RESEARCH USE

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