

Meteorin (G-14): sc-164991

BACKGROUND

Meteorin, also known as METRN or RJD6, is a secreted protein belonging to the Meteorin family that contains 293 amino acids and promotes axonal extension, axonal network formation and regulates glial cell differentiation. Expressed in radial glia and undifferentiated neural progenitors of the central and peripheral nervous system, Meteorin is encoded by a gene located on human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN (Gigaxonin) 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

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- Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. *Am. J. Hum. Genet.* 52: 249-254.
- Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Kuhlenbäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. *Neurology* 58: 1273-1276.
- Nishino, J., et al. 2004. Meteorin: a secreted protein that regulates glial cell differentiation and promotes axonal extension. *EMBO J.* 23: 1998-2008.
- Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13: R161-R168.
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CHROMOSOMAL LOCATION

Genetic locus: METRN (human) mapping to 16p13.3; Metrn (mouse) mapping to 17 A3.3.

SOURCE

Meteorin (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Meteorin 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-164991 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Meteorin (G-14) is recommended for detection of Meteorin 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).

Meteorin (G-14) is also recommended for detection of Meteorin in additional species, including equine.

Suitable for use as control antibody for Meteorin siRNA (h): sc-93205, Meteorin siRNA (m): sc-149377, Meteorin shRNA Plasmid (h): sc-93205-SH, Meteorin shRNA Plasmid (m): sc-149377-SH, Meteorin shRNA (h) Lentiviral Particles: sc-93205-V and Meteorin shRNA (m) Lentiviral Particles: sc-149377-V.

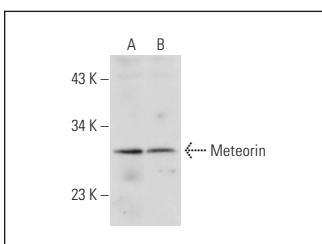
Molecular Weight of Meteorin: 31 kDa.

Positive Controls: mouse cerebellum extract: sc-2403 or rat cerebellum extract: sc-2398.

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



Meteorin (G-14): sc-164991. Western blot analysis of Meteorin expression in mouse cerebellum (A) and rat cerebellum (B) tissue extracts.

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.