

M83 (B-5): sc-398790



The Power to Question

BACKGROUND

M83, also known as TMEM8A (transmembrane protein 8A), TMEM8 or TMEM6, is a 771 amino acid multi-pass membrane protein that is thought to play a role in cell surface adhesion. A member of the TMEM8 family, M83 is expressed in spleen, liver, pancreas, placenta, tonsil, bone marrow, kidney and peripheral blood leukocytes. M83 contains one EGF-like domain and is implicated in the maintenance of T-cells in their resting state. The gene encoding M83 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

- Baraitser, M. and Preece, M.A. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. *Clin. Genet.* 23: 318-320.
- Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by sub-microscopic deletions within 16p13.3. *Am. J. Hum. Genet.* 52: 249-254.
- Motohashi, T., et al. 2000. Molecular cloning and chromosomal mapping of a novel five-span transmembrane protein gene, M83. *Biochem. Biophys. Res. Commun.* 276: 244-250.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: TMEM8A (human) mapping to 16p13.3; Tmem8 (mouse) mapping to 17 A3.3.

SOURCE

M83 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 516-554 within an extracellular domain of M83 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

M83 (B-5) is available conjugated to agarose (sc-398790 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398790 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398790 PE), fluorescein (sc-398790 FITC), Alexa Fluor® 488 (sc-398790 AF488), Alexa Fluor® 546 (sc-398790 AF546), Alexa Fluor® 594 (sc-398790 AF594) or Alexa Fluor® 647 (sc-398790 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398790 AF680) or Alexa Fluor® 790 (sc-398790 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398790 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

M83 (B-5) is recommended for detection of M83 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for M83 siRNA (h): sc-93041, M83 siRNA (m): sc-149204, M83 shRNA Plasmid (h): sc-93041-SH, M83 shRNA Plasmid (m): sc-149204-SH, M83 shRNA (h) Lentiviral Particles: sc-93041-V and M83 shRNA (m) Lentiviral Particles: sc-149204-V.

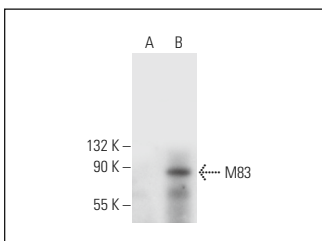
Molecular Weight of M83: 84 kDa.

Positive Controls: M83 (h): 293T Lysate: sc-175340 or TF-1 cell lysate: sc-2412.

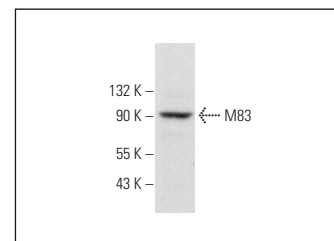
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



M83 (B-5): sc-398790. Western blot analysis of M83 expression in non-transfected: sc-117752 (A) and human M83 transfected: sc-175340 (B) 293T whole cell lysates.



M83 (B-5): sc-398790. Western blot analysis of M83 expression in TF-1 whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

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