

2010001M09Rik (V-14): sc-166994

BACKGROUND

2010001M09Rik, also known as pERp1 or Pacap (plasma cell-induced resident endoplasmic reticulum protein), is a 188 amino acid protein of the endoplasmic reticulum that belongs to the PERP1 family. Associating with immunoglobulin M (IgM) heavy and light chains, 2010001M09Rik promotes IgM assembly and secretion. While it may exert its effect by acting as a molecular chaperone or as an oxidoreductase, 2010001M09Rik displays a low level of oxidoreductase activity. 2010001M09Rik is part of the ER chaperone complex, a multi-protein complex in the endoplasmic reticulum that contains a large number of molecular chaperones. These chaperones associate with unassembled and incompletely folded immunoglobulin heavy chains. Although it is expressed at high levels in spleen, 2010001M09Rik is expressed at low levels in thymus, lung and uterus. The gene that encodes 2010001M09Rik maps to mouse chromosome 18 B2 and human chromosome 5.

REFERENCES

- Hoffman, B.G., et al. 2006. Identification of novel genes and transcription factors involved in spleen, thymus and immunological development and function. *Genes Immun.* 7: 101-112.
- Anindya, R., et al. 2007. Damage-induced ubiquitylation of human RNA polymerase II by the ubiquitin ligase Nedd4, but not Cockayne syndrome proteins or BRCA1. *Mol. Cell* 28: 386-397.
- Vera-Carbonell, A., et al. 2009. Characterization of a *de novo* complex chromosomal rearrangement in a patient with cri-du-chat and trisomy 5p syndromes. *Am. J. Med. Genet. A* 149A: 2513-2521.
- Ravandi, F., et al. 2009. Superior outcome with hypomethylating therapy in patients with acute myeloid leukemia and high-risk myelodysplastic syndrome and chromosome 5 and 7 abnormalities. *Cancer* 115: 5746-5751.
- Sazawal, S., et al. 2009. Haematological & molecular profile of acute myelogenous leukaemia in India. *Indian J. Med. Res.* 129: 256-261.

CHROMOSOMAL LOCATION

Genetic locus: Mzb1 (mouse) mapping to 18 B2.

SOURCE

2010001M09Rik (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of 2010001M09Rik 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-166994 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

2010001M09Rik (V-14) is recommended for detection of 2010001M09Rik of mouse origin and RGD1310251 of rat 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).

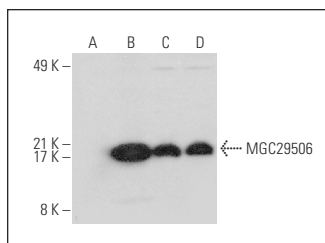
Suitable for use as control antibody for 2010001M09Rik siRNA (m): sc-108589, 2010001M09Rik shRNA Plasmid (m): sc-108589-SH and 2010001M09Rik shRNA (m) Lentiviral Particles: sc-108589-V.

Molecular Weight of 2010001M09Rik: 21 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) 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



2010001M09Rik (V-14): sc-166994. Western blot analysis of MGC29506 expression in non-transfected 293T: sc-117752 (A), human MGC29506 transfected 293T: sc-175812 (B), Raji (C) and MOLT-4 (D) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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