

MPND (S-15): sc-138999

BACKGROUND

Proteases are enzymes that are involved in protein catabolism by hydrolyzing the peptide bonds between amino acids in a polypeptide chain. MPND (MPN domain-containing protein) is a 471 amino acid protein that is thought to be a protease. Expressed as two isoforms produced by alternative splicing, MPND contains a JAMM motif and one MPN domain. The gene that encodes MPND maps to human chromosome 19, which consists of around 63 million bases with over 1,400 genes, making up over 2% of human genomic DNA. Chromosome 19 includes a diversity of interesting genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc α receptors. Key genes for eye color and hair color also map to chromosome 19.

REFERENCES

- Zimmermann, W., et al. 1988. Chromosomal localization of the carcinoembryonic antigen gene family and differential expression in various tumors. *Cancer Res.* 48: 2550-2554.
- LaPoint, S.F., et al. 2000. Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *Adv. Anat. Pathol.* 7: 307-321.
- Trettel, F., et al. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
- Buchet-Poyau, K., et al. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. *Cytogenet. Genome Res.* 97: 171-178.
- Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. *Eur. J. Immunogenet.* 29: 287-291.
- Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
- Parham, P. 2005. Immunogenetics of killer cell immunoglobulin-like receptors. *Mol. Immunol.* 42: 459-462.
- Brocke-Heidrich, K., et al. 2006. Bcl-3 is induced by IL-6 via Stat3 binding to intronic enhancer HS4 and represses its own transcription. *Oncogene* 25: 7297-7304.
- Vikelis, M., et al. 2007. A novel CADASIL-causing mutation in a stroke patient. *Swiss Med. Wkly.* 137: 323-325.

CHROMOSOMAL LOCATION

Genetic locus: MPND (human) mapping to 19p13.3; MpnD (mouse) mapping to 17 D.

SOURCE

MPND (S-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of MPND of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138999 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MPND (S-15) is recommended for detection of MPND of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MPND (S-15) is also recommended for detection of MPND in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MPND siRNA (h): sc-97324, MPND siRNA (m): sc-149532, MPND shRNA Plasmid (h): sc-97324-SH, MPND shRNA Plasmid (m): sc-149532-SH, MPND shRNA (h) Lentiviral Particles: sc-97324-V and MPND shRNA (m) Lentiviral Particles: sc-149532-V.

Molecular Weight of MPND: 50 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.