

VMAC (A-12): sc-139103

BACKGROUND

VMAC (vimentin-type intermediate filament associated coiled-coil protein) is a 169 amino acid cytoplasmic protein that colocalizes with vimentin-type intermediate filaments. It is thought that vimentin-type intermediate filaments play an important role in cytoskeletal organization and cell morphology. VMAC consists of a coiled-coil domain in its N-terminal region and a PDZ-binding tetrapeptide consensus motif in its C-terminal region. Abundant in kidney, VMAC is encoded by a gene located on human chromosome 19p13.3. Consisting of around 63 million bases with over 1,400 genes, chromosome 19 makes 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.

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 STK11P 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.
- Yamamoto, Y., et al. 2004. Vmac: a novel protein associated with vimentin-type intermediate filament in podocytes of rat kidney. *Biochem. Biophys. Res. Commun.* 315: 1120-1125.

CHROMOSOMAL LOCATION

Genetic locus: VMAC (human) mapping to 19p13.3.

SOURCE

VMAC (A-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of VMAC 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-139103 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VMAC (A-12) is recommended for detection of VMAC of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for VMAC siRNA (h): sc-97359, VMAC shRNA Plasmid (h): sc-97359-SH and VMAC shRNA (h) Lentiviral Particles: sc-97359-V.

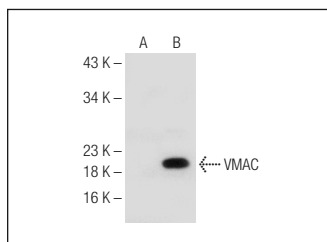
Molecular Weight of VMAC: 19 kDa.

Positive Controls: VMAC (h): 293T Lysate: sc-112001.

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) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



VMAC (A-12): sc-139103. Western blot analysis of VMAC expression in non-transfected: sc-117752 (A) and human VMAC transfected: sc-112001 (B) 293T whole cell lysates.

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.