

# MAN2C1 (V-20): sc-66461

## BACKGROUND

Misfolded glycoproteins are deglycosylated by the peptide N-glycanase during the degradation process. Free oligosaccharides released by N-glycanase are catabolized by cytosolic MAN2C1, also designated  $\alpha$ -mannosidase 2C1. MAN2C1, a member of the glycosyl hydrolase 38 family, can cleave  $\alpha$  1,2-linked,  $\alpha$  1,3-linked and  $\alpha$  1,6-linked mannose residues and is stimulated by cobalt. The furanose analogs, swainsonine (SW) and 1,4-dideoxy-1,4-imino-d-mannitol (DIM), are known inhibitors of MAN2C1. The inhibition of MAN2C1 can enhance the adhesion of Jurkat T cells, showing a cytoskeletal rearrangement of the cells.

## REFERENCES

1. Suzuki, T., et al. 2006. MAN2C1, an  $\alpha$ -mannosidase, is involved in the trimming of free oligosaccharides in the cytosol. *Biochem. J.* 400: 33-41.
2. Qu, L., et al. 2006. Inhibition of the  $\alpha$ -mannosidase MAN2C1 gene expression enhances adhesion of Jurkat cells. *Cell Res.* 16: 622-631.
3. Dash, D.P., et al. 2006. Fine mapping of the ker-atoconus with cataract locus on chromosome 15q and candidate gene analysis. *Mol. Vis.* 12: 499-505.
4. Costanzi, E., et al. 2006. Cloning and expression of mouse cytosolic  $\alpha$ -mannosidase (MAN2C1). *Biochim. Biophys. Acta* 1760: 1580-1586.
5. McDaniel, A.H., et al. 2006. A locus on mouse chromosome 9 (Adip5) affects the relative weight of the gonadal but not retroperitoneal adipose depot. *Mamm. Genome* 17: 1078-1092.
6. Shi, Y., et al. 2007. Inhibition of malignant activities of nasopharyngeal carcinoma cells with high expression of CD44 by siRNA. *Oncol. Rep.* 18: 397-403.

## CHROMOSOMAL LOCATION

Genetic locus: MAN2C1 (human) mapping to 15q24.2; Man2c1 (mouse) mapping to 9 B.

## SOURCE

MAN2C1 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAN2C1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-66461 P, (100  $\mu$ g 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

MAN2C1 (V-20) is recommended for detection of MAN2C1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

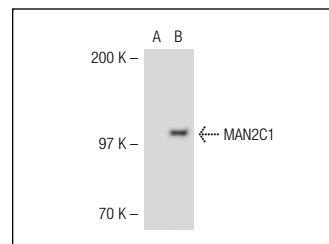
MAN2C1 (V-20) is also recommended for detection of MAN2C1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MAN2C1 siRNA (h): sc-62596, MAN2C1 siRNA (m): sc-62597, MAN2C1 shRNA Plasmid (h): sc-62596-SH, MAN2C1 shRNA Plasmid (m): sc-62597-SH, MAN2C1 shRNA (h) Lentiviral Particles: sc-62596-V and MAN2C1 shRNA (m) Lentiviral Particles: sc-62597-V.

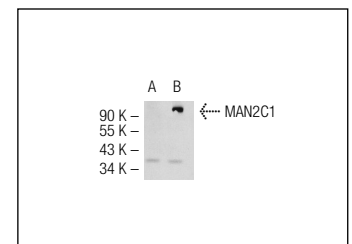
Molecular Weight of MAN2C1: 116 kDa.

Positive Controls: MAN2C1 (h2): 293T Lysate: sc-116217, MAN2C1 (m): 293T Lysate: sc-121498 or Hep G2 cell lysate: sc-2227.

## DATA



MAN2C1 (V-20): sc-66461. Western blot analysis of MAN2C1 expression in non-transfected: sc-117752 (A) and human MAN2C1 transfected: sc-116217 (B) 293T whole cell lysates.



MAN2C1 (V-20): sc-66461. Western blot analysis of MAN2C1 expression in non-transfected: sc-117752 (A) and mouse MAN2C1 transfected: sc-121498 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **MAN2C1 (C-4): sc-377132** or **MAN2C1 (G-8): sc-271088**, our highly recommended monoclonal alternatives to MAN2C1 (V-20).