

# MAN2B1 (Q-20): sc-243402

## BACKGROUND

MAN2B1 (mannosidase  $\alpha$  class 2B member 1), also known as MANB (mannosidase  $\alpha$ -B) or LAMAN (lysosomal  $\alpha$ -mannosidase), is a 1,011 amino acid lysosomal protein that cleaves  $\alpha$ -mannosidic linkages. Essential for N-linked carbohydrate catabolism during glycoprotein turnover, MAN2B1 binds one zinc ion per subunit and belongs to the glycosyl hydrolase 38 family. MAN2B1 is processed into five peptide chains and undergoes post-translational glycosylation. Defects in the gene encoding MAN2B1 are the cause of a lysosomal storage disease known as lysosomal  $\alpha$ -mannosidosis (AM). Patients with AM have an accumulation of unbranched oligosaccharide chains primarily in the central nervous system, typically resulting in impaired hearing, mental retardation and frequent infections.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MAN2B1 (human) mapping to 19p13.2; Man2b1 (mouse) mapping to 8 C3.

## RESEARCH USE

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

## SOURCE

MAN2B1 (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAN2B1 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-243402 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MAN2B1 (Q-20) is recommended for detection of MAN2B1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other MAN2 family members.

MAN2B1 (Q-20) is also recommended for detection of MAN2B1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MAN2B1 siRNA (h): sc-97712, MAN2B1 siRNA (m): sc-149246, MAN2B1 shRNA Plasmid (h): sc-97712-SH, MAN2B1 shRNA Plasmid (m): sc-149246-SH, MAN2B1 shRNA (h) Lentiviral Particles: sc-97712-V and MAN2B1 shRNA (m) Lentiviral Particles: sc-149246-V.

Molecular Weight of MAN2B1: 114 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> 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.

## PROTOCOLS

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