

# GnT-V (H-126): sc-366149

## BACKGROUND

UDP-N-acetylglucosamine:α mannoside β1, 6 N-acetylglucosaminyltransferase, known as GnT-V, plays a pivotal role in the processing of N-linked glycoproteins and influences cancer progression and metastasis. Expression of GnT-V in the liver is enhanced during hepatocarcinogenesis, although it is not expressed in normal liver. Gene expression of GnT-V is regulated by a transcriptional factor, which is involved in angiogenesis and invasion of tumor cells. When the formation of the product of GnT-V, GlcNAc-β1-6, is inhibited by overexpression of GnT-III, lung metastasis of melanoma cells is suppressed. Modification of glycoprotein receptors such as the receptors for epidermal growth factor and nerve growth factor by GnT-III sense transfection changes an intracellular signaling pathway, which may lead to a variety of biological alterations in tumor cells.

## REFERENCES

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4. Fukuta, K., Abe, R., Yokomatsu, T., Minowa, M.T., Takeuchi, M., Asanagi, M. and Makino, T. 2001. The widespread effect of β 1,4-galactosyltransferase on N-glycan processing. *Arch. Biochem. Biophys.* 392: 79-86.
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## CHROMOSOMAL LOCATION

Genetic locus: MGAT5 (human) mapping to 2q21.2; Mgat5 (mouse) mapping to 1 E3.

## SOURCE

GnT-V (H-126) is a rabbit polyclonal antibody raised against amino acids 45-170 mapping near the N-terminus of GnT-V of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

GnT-V (H-126) is recommended for detection of GnT-V of mouse, rat and human 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).

GnT-V (H-126) is also recommended for detection of GnT-V in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for GnT-V siRNA (h): sc-40642, GnT-V siRNA (m): sc-40643, GnT-V shRNA Plasmid (h): sc-40642-SH, GnT-V shRNA Plasmid (m): sc-40643-SH, GnT-V shRNA (h) Lentiviral Particles: sc-40642-V and GnT-V shRNA (m) Lentiviral Particles: sc-40643-V.

Molecular Weight of GnT-V: 85 kDa.

## 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.

## RESEARCH USE

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

## PROTOCOLS

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Try **GnT-V (3E9): sc-293276**, our highly recommended monoclonal alternative to GnT-V (H-126).