

# GnT-IVA (E-12): sc-168022

## BACKGROUND

GnT-IVA (N-acetylglucosaminyltransferase IVA), also known as GlcNAc-T IVA, GnT-IV or MGAT4A (mannosyl ( $\alpha$ -1,3-)-glycoprotein  $\beta$ -1,4-N-acetylglucosaminyltransferase, isozyme A) is a type II single-pass membrane protein that belongs to the glycosyltransferase 54 family of proteins. Localizing to the membrane of the Golgi apparatus, GnT-IVA is expressed in thymus, pancreas, prostate, small intestine, lymph node, spleen and peripheral blood leukocytes. It functions as a glycosyltransferase and participates in protein modification by catalyzing the transfer of N-acetylglucosamine (GlcNAc) to mannose residues of N-linked glycans, thereby regulating the formation of tri- and multi-antennary structures. GnT-IVA may be involved in regulating cell differentiation, oncogenesis and the availability of serum glycoproteins and is known to play a role in the development of choriocarcinoma. In addition, GnT-IVA is recognized as a genetic marker for pancreatic cancer as its expression is downregulated in these cancer tissues.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MGAT4A (human) mapping to 2q11.2; Mgat4a (mouse) mapping to 1 B.

## SOURCE

GnT-IVA (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GnT-IVA 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-168022 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GnT-IVA (E-12) is recommended for detection of GnT-IVA and GnT-IVA soluble form 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 GnT-IVB or GnT-IVH.

GnT-IVA (E-12) is also recommended for detection of GnT-IVA and GnT-IVA soluble form in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GnT-IVA siRNA (h): sc-94905, GnT-IVA siRNA (m): sc-145663, GnT-IVA shRNA Plasmid (h): sc-94905-SH, GnT-IVA shRNA Plasmid (m): sc-145663-SH, GnT-IVA shRNA (h) Lentiviral Particles: sc-94905-V and GnT-IVA shRNA (m) Lentiviral Particles: sc-145663-V.

Molecular Weight of GnT-IVA: 62 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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.

## RESEARCH USE

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