

# St3Gal-II (G-15): sc-165600

## BACKGROUND

Cell type-specific expression of unique carbohydrate structures on cell surface glycoproteins and glycolipids provides information relevant to cell-cell interactions in developing and adult organisms. Sialyltransferases contribute to the diversity of carbohydrate structures through their attachment of sialic acid to various terminal positions on glycolipid and glycoprotein (N-linked and O-linked) carbohydrate groups. St3Gal-II (St3  $\beta$ -galactoside  $\alpha$ -2,3-sialyltransferase 2), also known as SIAT4B, Gal-NAc6S, ST3GAL2 or ST3GalA.2, is a member of the glycosyltransferase 29 family of proteins. Predominantly expressed in heart and skeletal muscle, St3Gal-II exists as a single-pass membrane protein localizing to the Golgi apparatus. In addition to forward sialylation reactions (the transfer of NeuAc from CMP-NeuAc to galactose-containing substrates), St3Gal-II readily catalyzes reversible sialylation reactions (the transfer of NeuAc from sialylated donors to CMP (cytidine 5'-monophosphate)). This reverse reaction provides newly synthesized CMP-NeuAc which is then available for transfer to another acceptor.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ST3GAL2 (human) mapping to 16q22.1; St3gal2 (mouse) mapping to 8 E1.

## RESEARCH USE

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

## SOURCE

St3Gal-II (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of St3Gal-II 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-165600 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

St3Gal-II (G-15) is recommended for detection of St3Gal-II 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 St3Gal family members.

St3Gal-II (G-15) is also recommended for detection of St3Gal-II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for St3Gal-II siRNA (h): sc-93118, St3Gal-II siRNA (m): sc-153860, St3Gal-II shRNA Plasmid (h): sc-93118-SH, St3Gal-II shRNA Plasmid (m): sc-153860-SH, St3Gal-II shRNA (h) Lentiviral Particles: sc-93118-V and St3Gal-II shRNA (m) Lentiviral Particles: sc-153860-V.

Molecular Weight of St3Gal-II: 40 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) 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™ 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.



Try **St3Gal-II (34-K): sc-100856**, our highly recommended monoclonal alternative to St3Gal-II (G-15).