

# GalNAc4S-6ST (E-17): sc-160348

## BACKGROUND

Sulfotransferase enzymes catalyze the sulfate conjugation of many hormones, neurotransmitters, drugs and xenobiotic compounds. These cytosolic enzymes differ in their tissue distribution and substrate specificity, but share similar gene structure (number and length of exons). GalNAc4S-6ST (N-acetylgalactosamine 4-sulfate 6-O-sulfotransferase), also known as BRAG, is a 561 amino acid single-pass type II membrane protein that localizes to the Golgi apparatus and belongs to the sulfotransferase 1 family. Expressed in fetal and adult bone marrow, spleen and lymph node, GalNAc4S-6ST exists as a disulfide-linked homodimer that uses divalent metal cations to catalyze the transfer of sulfate from 3'-phosphoadenosine 5'-phosphosulfate (PAPS) to chondroitin sulfate A, thereby forming chondroitin sulfate E containing GlcA-GalNAc(4,6-SO(4)) repeating units. Additionally, GalNAc4S-6ST, which is expressed as multiple alternatively spliced isoforms, may also function as a B cell receptor, possibly playing a role B cell development and regulation.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CHST15 (human) mapping to 10q26.13; Chst15 (mouse) mapping to 7 F3.

## SOURCE

GalNAc4S-6ST (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GalNAc4S-6ST 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.

Blocking peptide available for competition studies, sc-160348 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GalNAc4S-6ST (E-17) is recommended for detection of GalNAc4S-6ST 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).

GalNAc4S-6ST (E-17) is also recommended for detection of GalNAc4S-6ST in additional species, including equine and canine.

Suitable for use as control antibody for GalNAc4S-6ST siRNA (h): sc-90417, GalNAc4S-6ST siRNA (m): sc-145317, GalNAc4S-6ST shRNA Plasmid (h): sc-90417-SH, GalNAc4S-6ST shRNA Plasmid (m): sc-145317-SH, GalNAc4S-6ST shRNA (h) Lentiviral Particles: sc-90417-V and GalNAc4S-6ST shRNA (m) Lentiviral Particles: sc-145317-V.

Molecular Weight of GalNAc4S-6ST isoforms: 55/60 kDa.

Positive Controls: mouse liver extract: sc-2256.

## 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.

## RESEARCH USE

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