

FucT-XI (G-13): sc-164444

BACKGROUND

Glycosyltransferases that mediate the regio and stereoselective transfer of sugars, such as the fucosyltransferases, determine cell surface-carbohydrate profiles, which are essential interfaces for biological recognition processes. Fucosyltransferases (FucTs) catalyze the covalent association of fucose to different positional linkages on sugar acceptor molecules. The carbohydrate moieties that are generated are covalently attached to cell surfaces and are necessary to ensure a surface contour that satisfies a variety of physiological roles. FucT-XI (fucosyltransferase XI), also known as α -(1,3) fucosyltransferase 11 or galactoside 3-L-fucosyltransferase 11, is a 492 amino acid single-pass type II membrane protein that belongs to the glycosyltransferase 10 family. Localizing to Golgi apparatus, FucT-XI may act as a fucosyltransferase and exists as two alternatively spliced isoforms. The gene encoding FucT-XI maps to mouse chromosome 14 A3.

REFERENCES

1. Baboval, T. and Smith, F.I. 2002. Comparison of human and mouse Fuc-TX and Fuc-TXI genes, and expression studies in the mouse. *Mamm. Genome* 13: 538-541.
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3. Marathe, D.D., et al. 2008. Systems-level studies of glycosyltransferase gene expression and enzyme activity that are associated with the selectin binding function of human leukocytes. *FASEB J.* 22: 4154-4167.
4. Wang, Q.Y., et al. 2008. α 1,3 fucosyltransferase-VII up-regulates the mRNA of α 5 integrin and its biological function. *J. Cell. Biochem.* 104: 2078-2090.
5. Nilsson, C., et al. 2008. Lipopolysaccharide diversity evolving in *Helicobacter pylori* communities through genetic modifications in fucosyltransferases. *PLoS ONE* 3: e3811.
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7. Stacke, C., et al. 2010. Comparison of expression systems for human fucosyltransferase IX. *Eur. J. Cell Biol.* 89: 35-38.

CHROMOSOMAL LOCATION

Genetic locus: FUT11 (human) mapping to 10q22.2; Fut11 (mouse) mapping to 14 A3.

SOURCE

FucT-XI (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FucT-XI of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-164444 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FucT-XI (G-13) is recommended for detection of FucT-XI 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 FucT family members.

FucT-XI (G-13) is also recommended for detection of FucT-XI in additional species, including equine, canine and bovine.

Suitable for use as control antibody for FucT-XI siRNA (h): sc-90637, FucT-XI siRNA (m): sc-145271, FucT-XI shRNA Plasmid (h): sc-90637-SH, FucT-XI shRNA Plasmid (m): sc-145271-SH, FucT-XI shRNA (h) Lentiviral Particles: sc-90637-V and FucT-XI shRNA (m) Lentiviral Particles: sc-145271-V.

Molecular Weight of FucT-XI isoform 1: 56 kDa.

Molecular Weight of FucT-XI isoform 2: 54 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™ 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.