B3GNT6, soluble fragment, Human Recombinant

CATALOG NO: P1221-5 5 µg

ALTERNATE NAMES: Acetylgalactosaminyl-O-glycosyl-glycoprotein beta-1,3-N acetylglucosaminyltransferase, Core 3 synthase, UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 6, BGnT-6, Beta-1,3-Gn-T6

SOURCE: Insect Cells

PURITY: > 95% by SDS – PAGE

MOL. WEIGHT: 50-55 kDa

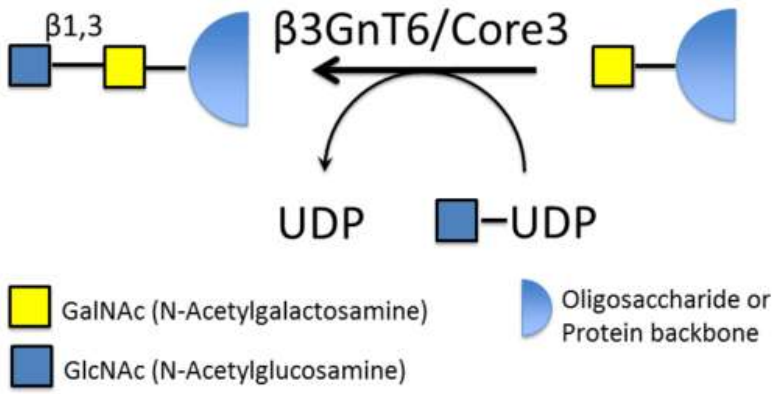
FORM: Liquid

FORMULATION: Sterile filtered solution in 25 mM Tris pH 7.5 and 150 mM NaCl, at a stock concentration of 100 ug/ml.

STORAGE CONDITIONS: Stable for 4 weeks at 4ºC. Stable for 6 months at -80ºC. Avoid repeated freeze-thaw cycles.

DESCRIPTION: β-1,3-N-acetylglucosaminyltransferase 6 (β3GnT6) transfers N-acetylglucosamine (GlcNAc) from UDP-GlcNAc to N-acetylgalactosamine (GalNAc). β3GnT6 is also known as the core 3 synthase, because it creates the core 3 oligosaccharide structure in the mucin-type O-glycan, GlcNAcβ1-3GalNAcα1-serine/threonine. Core 3 synthase is a type II transmembrane protein, and is localized to stomach, small intestine and colonic tissues. It has long been known that synthesis of the core 3 structure is down-regulated in colonic cancer cells and it has been shown that the expression of β3GnT6 is also down-regulated. Colonic cancer cells transfected with β3GnT6 have reduced metastatic potential compared to non-transfected cells, and when injected into mice show decreased tumor formation. Pancreatic cancer cells transfected with β3GnT6 show a similar phenotype, which has been attributed to the addition of core3 O-glycans to α2β1 integrin.

BIOLOGICAL ACTIVITY: Specific activity >100 pmol/min/ug. Measured by transfer of N-acetylglucosamine (GlcNAc) from UDP-GlcNAc to 4-Nitrophenyl-N-acetylgalactosamine, as measured with a phosphatase-coupled assay. Coupling assay reactions contained: 25 mM Tris pH 7.5, 150 mM NaCl, 10 mM MnCl2, 5 mM CaCl2, 20% DMSO, 0.2 mM UDP-GlcNAc, 0.6mM 4-NP-GalNAc, 1.67 ug/mL ENTPD3/CD39L3, and 6 ug/mL B3GnT6. Incubated at 37ºC for 60 min.



RELATED PRODUCT:

- GalNAc-T2, soluble fragment, Human Recombinant **(Cat. No. P1215)**
- GalNAc-T3, soluble fragment, Human Recombinant **(Cat. No. P1216)**
- GalNAc-T5, soluble fragment, Human Recombinant **(Cat. No. P1217)**
- GalNAc-T16, soluble fragment, Human Recombinant **(Cat. No. P1218)**
- B4GalT1, soluble fragment, Human Recombinant **(Cat. No. P1220)**
- ST6GalNAc1, soluble fragment, Human Recombinant **(Cat. No. P1221)**
- ST3Gal1, soluble fragment, Human Recombinant **(Cat. No. P1222)**

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