

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Polypeptide GalNAc Transferase 2/GALNT2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) GALNT1 and rhGALNTL-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Polypeptide GalNAc Transferase 2/GALNT2 Lys52-Gln571 Accession # Q10471
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

GALNT2 (N-Acetyl-Galactoseaminyl Transferase 2; also UDP-Acetylgalactosaminyltransferase 2 and ppGalNAc-T2) is a 68-74 kDa member of the GalNAc transferase subfamily, glycosyltransferase 2 family of enzymes. It is widely expressed, being found on basal keratinocytes, hepatocytes, B cells, renal tubular epithelium, and virtually all cell lines examined to date. GALNT2 is found in the Golgi apparatus, and catalyzes the transfer of UDP-GalNAc onto either a Ser or Thr residue on a previously glycosylated peptide/polypeptide backbone. The generation of O-linked carbohydrates is believed to play a role in cytokine proteolytic processing, as the presence of O-linked sugar adjacent to a PC processing site is known to inhibit proteolysis and molecule inactivation. Human GALNT2 is a 571 amino acid (aa) type II transmembrane protein. It contains a six aa N-terminal cytoplasmic region and a 547 aa extracellular domain (aa 25-571). The ECD possesses two key parts, a catalytic region with two catalytic subdomains (aa 135-240 and 300-362), and a ricin-type lectin domain that binds carbohydrates (aa 456-566). The latter domain is suggested to facilitate GALNT2 action by imparting specificity and stability to the overall enzyme activity. A 52 kDa soluble form of GALNT2 has been reported that begins at Lys52. There are two potential splice form variants. Both contain a four aa substitution for aa 1-42, and one contains an additional four aa substitution for aa 543-571. Over aa 52-571, human GALNT2 shares 97% aa sequence identity with mouse GALNT2.

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