10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GALNT12 Rabbit pAb

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Catalog # AP94051

Product Information

Application	WB
Primary Accession	Q8IXK2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66938
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GALNT12/GalNAc-T12
Epitope Specificity	321-420/581
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus membrane.
SIMILARITY	Belongs to the glycosyltransferase 2 family. GalNAc-T subfamily. Contains 1 ricin B-type lectin domain.
DISEASE	Defects in GALNT12 are a cause of susceptibility to colorectal cancer type 1 (CRCS1) [MIM:608812]. Colorectal cancer is a malignancy originating either in the colon or rectum or both.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase (GalNAc-T) family of enzymes are substrate-specific proteins that catalyze the transfer of GalNAc (N-acetylgalactosamine) to serine and threonine residues onto various proteins, thereby initiating mucin-type O-linked glycosylation in the Golgi apparatus. GalNAc-T12 (Polypeptide N-acetylgalactosaminyltransferase 12), also known as UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 12, is a 581 amino acid protein that displays enzymatic activity towards non-glycosylated peptides such as Muc5Ac, Muc1a and EA2 with no detectable activity towards Muc2 and Muc7. The N-terminal domain is involved in substrate binding and manganese coordination, while the C-terminal domain is involved in UDP-Gal binding and catalytic reaction. Since GalNAc-T12 is highly expressed in stomach, pancreas, small intestine and colon, it may play a significant role in the initial step of mucin-type oligosaccharide biosynthesis in digestive organs.

Additional Information

Gene ID	79695
Other Names	Polypeptide N-acetylgalactosaminyltransferase 12, 2.4.1.41, Polypeptide

	GalNAc transferase 12, GalNAc-T12, pp-GaNTase 12, Protein-UDP acetylgalactosaminyltransferase 12, UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 12, GALNT12
Target/Specificity	Widely expressed at different levels of expression. Highly expressed in digestive organs such as small intestine, stomach, pancreas and colon. Expressed at intermediate level in testis, thyroid gland and spleen. Weakly expressed in whole brain, cerebral cortex, cerebellum, fetal brain, bone marrow, thymus, leukocytes, heart, skeletal muscle, liver, lung, esophagus, kidney, adrenal gland, mammary gland, uterus, placenta, ovary and prostate.
Dilution	WB=1:500-2000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	GALNT12
Function	Catalyzes the initial reaction in O-linked oligosaccharide biosynthesis, the transfer of an N-acetyl-D-galactosamine residue to a serine or threonine residue on the protein receptor. Has activity toward non-glycosylated peptides such as Muc5AC, Muc1a and EA2, and no detectable activity with Muc2 and Muc7. Displays enzymatic activity toward the Gal-NAc-Muc5AC glycopeptide, but no detectable activity to mono-GalNAc-glycosylated Muc1a, Muc2, Muc7 and EA2. May play an important role in the initial step of mucin-type oligosaccharide biosynthesis in digestive organs.
Cellular Location	Golgi apparatus membrane; Single- pass type II membrane protein
Tissue Location	Widely expressed at different levels of expression. Highly expressed in digestive organs such as small intestine, stomach, pancreas and colon. Expressed at intermediate level in testis, thyroid gland and spleen. Weakly expressed in whole brain, cerebral cortex, cerebellum, fetal brain, bone marrow, thymus, leukocytes, heart, skeletal muscle, liver, lung, esophagus, kidney, adrenal gland, mammary gland, uterus, placenta, ovary and prostate

Background

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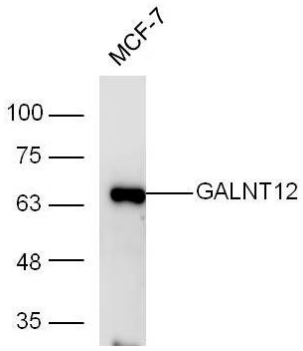
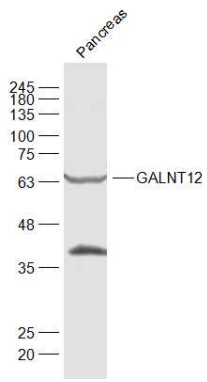
Images

Sample: MCF-7 (human)Cell Lysate at 40 ug Primary: Anti-GALNT12(AP94051) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 67 kD Observed band size: 67 kD





Sample: Pancreas (Mouse) Lysate at 40 ug Primary: Anti-GALNT12 (AP94051) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 67 kD Observed band size: 64 kD