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GALNT13 Rabbit pAb

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Catalog # AP55117

Product Information

Application	WB
Primary Accession	Q8IUC8
Reactivity	Rat
Predicted	Human, Mouse, Dog, Pig, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	64051
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GALNT13/GalNAc-T13 351-450/556
Epitope Specificity	
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; Single pass type II membrane protein.
SIMILARITY	Belongs to the glycosyltransferase 2 family. GalNAc-T subfamily. Contains 1 ricin B-type lectin domain.
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-T13 (Polypeptide N-acetylgalactosaminyltransferase 13), also known as UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 13, is a 556 amino acid protein that displays much stronger enzymatic activity than GalNAc-1 towards GalNAc transfer to mucin peptides such as Muc5a 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. With specific expression in the central nervous system, GalNAc-T13 may be responsible for the synthesis of Tn antigen in neuronal cells, which is a universal carcinoma marker on malignant cells.

Additional Information

Gene ID	114805
Other Names	Polypeptide N-acetylgalactosaminyltransferase 13, 2.4.1.41, Polypeptide GalNAc transferase 13, GalNAc-T13, pp-GaNTase 13, Protein-UDP acetylgalactosaminyltransferase 13, UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 13, GALNT13, KIAA1918

Target/Specificity	Specifically expressed in neuronal cells. Expressed in fetal brain, whole adult brain, cerebral cortex and cerebellum. Not expressed in other tissues tested.
Dilution	WB=1:500-2000
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

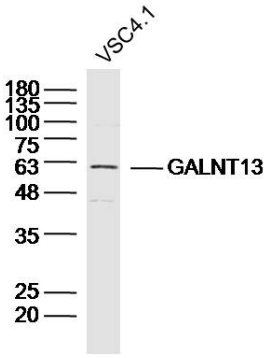
Name	GALNT13
Synonyms	KIAA1918
Function	Catalyzes the initial reaction in O-linked oligosaccharide biosynthesis, the transfer of an N-acetyl-D-galactosamine (GalNAc) residue from UDP-GalNAc to a serine or threonine residue on the protein receptor (PubMed:12407114, PubMed:22186971). Generates GalNAc-O-Ser/Thr structure also known as Tn antigen, which itself is immunogenic but also serves as a precursor for the synthesis of different mucin-type O- glycan core structures (PubMed:12407114). Contributes to the synthesis of O-linked glycans on mucins and proteoglycans of the central nervous system. May promote neurogenesis through glycosylation and stabilization of PDPN (By similarity) (PubMed:12407114, PubMed:22186971).
Cellular Location	Golgi apparatus membrane; Single- pass type II membrane protein
Tissue Location	Specifically expressed in neuronal cells. Expressed in fetal brain, whole adult brain, cerebral cortex and cerebellum. Not expressed in other tissues tested.

Background

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-T13 (Polypeptide N-acetylgalactosaminyltransferase 13), also known as UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase 13, is a 556 amino acid protein that displays much stronger enzymatic activity than GalNAc-1 towards GalNAc transfer to mucin peptides such as Muc5a 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. With specific expression in the central nervous system, GalNAc-T13 may be responsible for the synthesis of Tn antigen in neuronal cells, which is a universal carcinoma marker on malignant cells.

Images

Sample:VSC4.1 Cell (Rat) Lysate at 40 ug
Primary: Anti-GALNT13(AP55117)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 64kD
Observed band size: 62kD



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