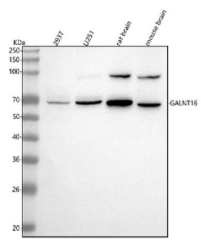
GALNT16 Antibody / Polypeptide N-acetylgalactosaminyltransferase 16 (FY12829)

Catalog No.	Formulation	Size
FY12829	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8N428
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This GALNT16 antibody is available for research use only.



Western blot analysis of GALNT16 using anti-GALNT16 antibody. Lane 1: human 293T whole cell lysates, Lane 2: human U251 whole cell lysates, Lane 3: rat brain tissue lysates, Lane 4: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GALNT16 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. GALNT16 western blot across human cell lines and rodent brain shows the expected band near ~65-70 kDa and an additional ~90 kDa band that is prominent in brain. The upper species likely represents a more heavily glycosylated and/or oligomeric form of GALNT16, consistent with known processing and complex formation of ppGalNAc-T family glycosyltransferases.

Description

GALNT16 antibody detects Polypeptide N-acetylgalactosaminyltransferase 16, a glycosyltransferase responsible for initiating mucin-type O-linked glycosylation of proteins. Encoded by the GALNT16 gene on chromosome 14q24.3, this enzyme belongs to the UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase (GalNAc-T) family and catalyzes the transfer of N-acetylgalactosamine (GalNAc) from UDP-GalNAc to serine or threonine residues of target proteins, forming the Tn antigen. GALNT16 participates in glycoprotein biosynthesis critical for cell signaling, adhesion, and extracellular communication.

Structurally, GALNT16 contains a catalytic domain responsible for GalNAc transferase activity and a C-terminal ricin-like lectin domain that enhances substrate recognition. It exhibits unique substrate specificity, preferentially modifying glycoproteins involved in neuronal signaling, epithelial maintenance, and immune responses. GALNT16 localizes to the Golgi apparatus, consistent with its function in post-translational modification and protein trafficking.

The GALNT16 antibody is widely used in glycobiology, cancer, and neurobiology research to investigate O-glycosylation pathways and their role in cellular communication. Western blot analysis identifies a 64 kilodalton band corresponding to GALNT16, while immunofluorescence reveals Golgi-localized perinuclear staining. This antibody provides a valuable tool for studying differential glycosylation patterns and their impact on protein stability and cell signaling.

Altered GALNT16 expression has been observed in cancers, where changes in O-glycosylation influence tumor cell invasion and immune evasion. Its expression in brain tissue also suggests involvement in synaptic regulation and neurodevelopment. The GALNT16 antibody enables exploration of how glycosylation controls key biological processes in health and disease. NSJ Bioreagents validates this antibody for its applications, ensuring reliability for glycosylation and protein modification studies.

Application Notes

Optimal dilution of the GALNT16 antibody should be determined by the researcher.

Immunogen

E.coli-derived human GALNT16 recombinant protein (Position: M1-T558) was used as the immunogen for the GALNT16 antibody.

Storage

After reconstitution, the GALNT16 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.