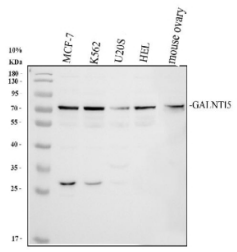
GALNT15 Antibody / Polypeptide N-acetylgalactosaminyltransferase 15 (FY12022)

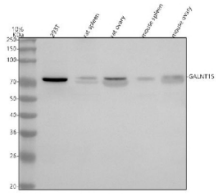
Catalog No.	Formulation	Size
FY12022	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

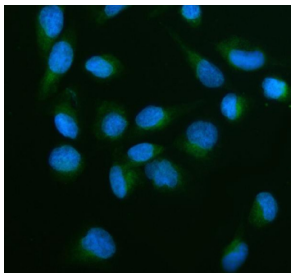
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8N3T1
Applications	Western Blot: 0.25-0.5ug/ml Immunocytochemistry: 5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This GALNT15 antibody is available for research use only.



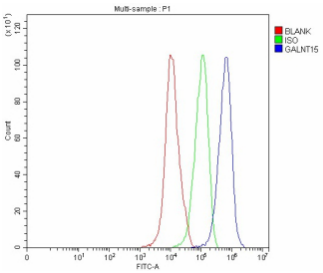
Western blot analysis of GALNT15 using anti-GALNT15 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human MCF-7 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human U2OS whole cell lysates, Lane 4: human HEL whole cell lysates, Lane 5: mouse ovary 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-GALNT15 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 is developed using an ECL Plus Western Blotting Substratewith Tanon 5200 system. A specific band was detected for GALNT15 at approximately 73 kDa. The expected band size for GALNT15 is at 73 kDa.



Western blot analysis of GALNT15 using anti-GALNT15 antibody. Lane 1: human 293T whole cell lysates, Lane 2: rat spleen tissue lysates, Lane 3: rat ovary tissue lysates, Lane 4: mouse spleen tissue lysates, Lane 5: mouse ovary 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-GALNT15 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. A specific band was detected for GALNT15 at approximately 73 kDa. The expected band size for GALNT15 is at 73 kDa.



IF analysis of GALNT15 using anti-GALNT15 antibody (green). GALNT15 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-GALNT15 antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of 293T cells using anti-GALNT15 antibody. Overlay histogram showing 293T cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GALNT15 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Description

GALNT15 antibody detects Polypeptide N-acetylgalactosaminyltransferase 15, encoded by the GALNT15 gene. Polypeptide N-acetylgalactosaminyltransferase 15 is a member of the GalNAc-transferase enzyme family that initiates O-linked glycosylation of proteins. GALNT15 antibody provides researchers with a specific reagent for studying protein glycosylation, cell surface biology, and disease mechanisms associated with altered glycan structures.

Polypeptide N-acetylgalactosaminyltransferase 15 catalyzes the first step in mucin-type O-glycosylation by transferring N-acetylgalactosamine to serine and threonine residues of proteins. Research using GALNT15 antibody has shown that it localizes to the Golgi apparatus, where it modifies a wide range of secreted and membrane proteins. This modification influences protein folding, stability, and interactions, highlighting its role in protein quality control.

Studies with GALNT15 antibody have revealed tissue-specific expression patterns, with high expression in reproductive tissues, brain, and gastrointestinal tract. This suggests specialized functions in mucosal barrier biology, fertility, and neuronal signaling. Isoform diversity further expands substrate specificity and biological functions of GALNT15.

Altered expression of GALNT15 has been implicated in cancer. Research using GALNT15 antibody has shown that abnormal glycosylation contributes to tumor progression by modifying adhesion molecules, receptors, and enzymes. Aberrant GALNT15 activity alters cell-cell communication and extracellular matrix interactions, promoting invasion and metastasis. These findings demonstrate its importance in tumor biology and potential as a biomarker.

In addition to cancer, variations in GALNT15 expression and function have been associated with infertility and neurological disease. Studies with GALNT15 antibody have suggested roles in sperm maturation and brain development. These findings expand its relevance beyond glycosylation to systemic physiology.

GALNT15 antibody is widely applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting quantifies isoforms and expression levels, immunohistochemistry identifies expression in tissue sections, and immunofluorescence demonstrates Golgi localization. These approaches make GALNT15 antibody essential for glycosylation research.

By supplying validated GALNT15 antibody reagents, NSJ Bioreagents supports studies into glycosylation, cancer, and reproductive biology. Detection of Polypeptide N-acetylgalactosaminyltransferase 15 provides researchers with insights into how glycan modification regulates protein function and disease mechanisms.

Application Notes

Optimal dilution of the GALNT15 antibody should be determined by the researcher.

Immunogen

E.coli-derived human GALNT15 recombinant protein (Position: H34-R639) was used as the immunogen for the GALNT15 antibody.

Storage

After reconstitution, the GALNT15 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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