

Anti-GalNAc-T2 [UH4]

Catalogue number: 155105

Sub-type: Primary antibody

Images:

Contributor

Inventor:

Institute: University of Copenhagen

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Anti-GalNAc-T2 [UH4]

Alternate name: UH4, 4C4

Class: Monoclonal

Conjugate: Unconjugated

Description: GalNAc-T2 is one of many polypeptide GalNAc-transferases that attach GalNAc to proteins forming the GalNAc-1-O-Ser/Thr linkage for GalNAc-type O-glycosylation. The GalNAc-transferase isoforms have considerably overlapping functions as well as unique distinct functions. GalNAc-T1 and -T2 are the main contributors to O-glycosylation of peptides in most cells and they have distinct functions as shown in murine models. GalNAc-T2 has been implicated in lipoprotein metabolism and risk of atherosclerosis as well as cancer. O-glycans are important biomarkers in cancer. The truncated O-glycans comprising Tn formed by the GalNAc transferases and T formed by further elongation by the core1 synthase (C1GalT1) are widely recognized as pancarcinoma antigens. They are masked by sialic acid or further elongation or branching in normal cells. Validation: 1. Positive reaction (IC/IF) in cells expressing GalNAc-T2 using close isoforms as negative controls e.g. GalNAc-T7/ T10. 2. Selective IP of active GalNAc-T2 from total cell extracts. 3. Distinct perinuclear staining in cell lines (ICC/IF) and tissues (IHC, IF) suggestive of Golgi localization. 4. Loss of staining (IC/IF) following KO of GalNAc-T2

Purpose:

Parental cell:

Organism:

Tissue:

Model:

Gender:

Isotype: IgG1

Reactivity: Human

Selectivity:

Host: Mouse

Immunogen: Catalytically active secreted GalNAc-T2 produced in insect cells. Recombinant protein containing aa. 52-571 (Uniprot isoform-1)

Immunogen UNIPROT ID: Q10471

Sequence:

Growth properties:

Production details:

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: GalNAc-T2/GALNT2

Target alternate names:

Target background: GalNAc-T2 is one of many polypeptide GalNAc-transferases that attach GalNAc to proteins forming the GalNAc1-O-Ser/Thr linkage for GalNAc-type O-glycosylation. The GalNAc-transferase isoforms have considerably overlapping functions as well as unique distinct functions. GalNAc-T1 and -T2 are the main contributors to O-glycosylation of peptides in most cells and they have distinct functions as shown in murine models. GalNAc-T2 has been implicated in lipoprotein metabolism and risk of atherosclerosis as well as cancer. O-glycans are important biomarkers in cancer. The truncated O-glycans comprising Tn formed by the GalNAc transferases and T formed by further elongation by the core1 synthase (C1GalT1) are widely recognized as pancarcinoma antigens. They are masked by sialic acid or further elongation or branching in normal cells. Validation: 1. Positive reaction (IC/IF) in cells expressing GalNAc-T2 using close isoforms as negative controls e.g. GalNAc T7/ T10. 2. Selective IP of active GalNAc-T2 from total cell extracts. 3. Distinct perinuclear staining in cell lines (ICC/IF) and tissues (IHC, IF) suggestive of Golgi localization. 4. Loss of staining (IC/IF) following KO of GalNAc-T2

Molecular weight:

Ic50:

Applications

Application: ELISA ; IHC ; IF ; IP

Application notes:

Handling

Format: Liquid
Concentration: 0.9-1.1 mg/ml
Passage number:
Growth medium:
Temperature:
Atmosphere:
Volume:
Storage medium:
Storage buffer: PBS with 0.02% azide
Storage conditions: -15° C to -25° C
Shipping conditions: Shipping at 4° C

Related tools

Related tools:

References

References: A validated collection of mouse monoclonal antibodies to human glycosyltransferases functioning in mucin-type O-glycosylation. ; Exploring Regulation of Protein O-Glycosylation in Isogenic Human HEK293 Cells by Differential O-Glycoproteomics. ; Deconstruction of O-glycosylation--GalNAc-T isoforms direct distinct subsets of the O-glycoproteome. ; Initiation of GalNAc-type O-glycosylation in the endoplasmic reticulum promotes cancer cell invasiveness. ; Control of mucin-type O-glycosylation: a classification of the polypeptide GalNAc-transferase gene family. ; Probing isoform-specific functions of polypeptide GalNAc-transferases using zinc finger nuclease glycoengineered SimpleCells. ; Expression of polypeptide GalNAc-transferases in stratified epithelia and squamous cell carcinomas: immunohistological evaluation using monoclonal antibodies to three members of the GalNAc-transferase family.