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FUT10 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56174

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q6P4F1
Reactivity	Rat, Dog, Chimpanzee
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56094
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FUT10
Epitope Specificity	381-479/479
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; Golgi stack membrane.
SIMILARITY	Belongs to the glycosyltransferase 10 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Glycosyltransferases that mediate the regio- and stereoselective transfer of sugars, such as the fucosyltransferases, determine cell surface-carbohydrate profiles, which is an essential interface for biological recognition processes. Fucosyltransferases catalyze the covalent association of fucose to different positional linkages in sugar acceptor molecules. Hematopoietic lineages rely on Fucosyltransferases to confer a surface carbohydrate phenotype, which mediates proper cell adhesion, molecule recruitment and cell trafficking. Localized to the Golgi apparatus as a single-pass transmembrane protein, FucT-X, also designated ?(1,3)-fucosyltransferase 10 or FUT10, is a 479 amino acid protein that is involved in protein modification and glycosylation. There are seven isoforms of FucT-X that are produced as a result of alternative splicing events.

Additional Information

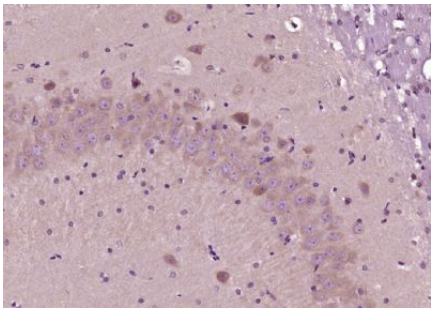
Gene ID	84750
Other Names	Alpha-(1, 3)-fucosyltransferase 10, 2.4.1.-, Fucosyltransferase X, Fuc-TX, FucT-X, Galactoside 3-L-fucosyltransferase 10, Fucosyltransferase 10, FUT10
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) 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.

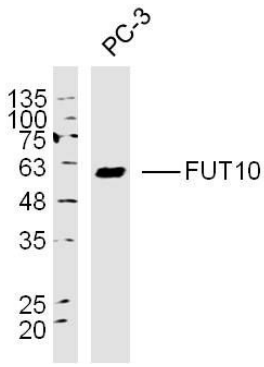
Protein Information

Name	FUT10 {ECO:0000303|PubMed:19088067, ECO:0000312|HGNC:HGNC:19234}
Function	Protein O-fucosyltransferase that specifically catalyzes O- fucosylation of serine or threonine residues in EMI domains of target proteins, such as MMRN1, MMRN2 and EMID1 (PubMed:39775168). Attaches fucose through an O-glycosidic linkage (PubMed:39775168). O- fucosylation of EMI domain-containing proteins may be required for facilitating protein folding and secretion (PubMed:39775168). May also show alpha-(1,3)-fucosyltransferase activity toward the innermost N- acetyl glucosamine (GlcNAc) residue in biantennary N-glycan acceptors (PubMed:19088067). However, this was tested with a library of synthetic substrates and this activity is unsure in vivo (PubMed:19088067). May be involved in biosynthesis of Lewis X-carrying biantennary N-glycans that regulate neuron stem cell self-renewal during brain development (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Single-pass type II membrane protein [Isoform 4]: Golgi apparatus. Lysosome
Tissue Location	Expressed in lung, digestive tract, gall bladder, placenta, kidney, uterus and brain. Not detected in spleen, heart, muscle, liver and pancreas.

Images

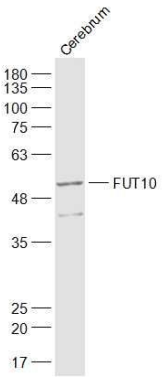


Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (FUT10) Polyclonal Antibody, Unconjugated (AP56174) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Sample: PC-3 (human)cell Lysate at 40 ug
Primary: Anti- FUT10 (AP56174) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 56 kD
Observed band size: 56 kD

Sample:



Cerebrum (Mouse) Lysate at 40 ug
Primary: Anti-FUT10 (AP56174) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 56 kD
Observed band size: 56 kD