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POFUT1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12747b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9H488
Other Accession	NP_056167.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32435
Calculated MW	43956
Antigen Region	344-373

Additional Information

Gene ID	23509
Other Names	GDP-fucose protein O-fucosyltransferase 1, Peptide-O-fucosyltransferase 1, O-FucT-1, POFUT1, FUT12, KIAA0180
Target/Specificity	This POFUT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 344-373 amino acids from the C-terminal region of human POFUT1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	POFUT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	POFUT1
Synonyms	FUT12, KIAA0180

Function	Catalyzes the reaction that attaches fucose through an O- glycosidic linkage to a conserved serine or threonine residue found in the consensus sequence C2-X(4,5)-[S/T]-C3 of EGF domains, where C2 and C3 are the second and third conserved cysteines. Specifically uses GDP- fucose as donor substrate and proper disulfide pairing of the substrate EGF domains is required for fucose transfer. Plays a crucial role in NOTCH signaling. Initial fucosylation of NOTCH by POFUT1 generates a substrate for FRINGE/RFNG, an acetylglucosaminyltransferase that can then extend the fucosylation on the NOTCH EGF repeats. This extended fucosylation is required for optimal ligand binding and canonical NOTCH signaling induced by DLL1 or JAGGED1. Fucosylates AGRN and determines its ability to cluster acetylcholine receptors (AChRs).
Cellular Location	Endoplasmic reticulum {ECO:0000250|UniProtKB:Q6EV70}
Tissue Location	Highly expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas

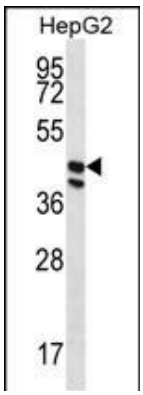
Background

This gene encodes a member of the glycosyltransferase O-Fuc family. This enzyme adds O-fucose through an O-glycosidic linkage to conserved serine or threonine residues in the epidermal growth factor-like repeats of a number of cell surface and secreted proteins. O-fucose glycans are involved in ligand-induced receptor signaling. Alternative splicing of this gene results in two transcript variants encoding different isoforms. [provided by RefSeq].

References

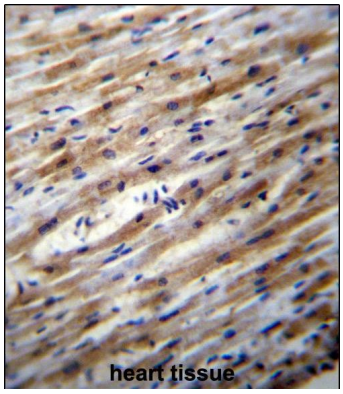
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Images



POFUT1 Antibody (C-term) (Cat. #AP12747b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the POFUT1 antibody detected the POFUT1 protein (arrow).

POFUT1 Antibody (C-term) (Cat. #AP12747b)immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of POFUT1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been



evaluated.

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