

POFUT1 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51434

Specification

POFUT1 Antibody - Product Information

Application	WB, IP, ICC, IHC-P, E
Primary Accession	Q9H488
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44 KDa

POFUT1 Antibody - Additional Information

Gene ID 23509

Other Names

GDP-fucose protein O-fucosyltransferase 1, Peptide-O-fucosyltransferase 1, O-FucT-1, POFUT1, FUT12, KIAA0180

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

Store at -20 °C. Stable for 12 months from date of receipt

POFUT1 Antibody - 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

POFUT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

POFUT1 Antibody - Images

POFUT1 Antibody - Background

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).

POFUT1 Antibody - References

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Nagase T.,et al.DNA Res. 3:17-24(1996).
Nakajima D.,et al.DNA Res. 9:99-106(2002).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 414:865-871(2001).