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POFUT2 Rabbit pAb

Catalog # AP99251

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9Y2G5
Other Accession	Q9Y2G5
Reactivity	Human
Predicted	Rat, Mouse, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49976
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human POFUT2
Epitope Specificity	61-160/429
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the glycosyltransferase 68 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Fucose is typically found as a terminal modification of branched chain glycoconjugates, but it also exists in direct O-linkage to serine or threonine residues within cystine knot motifs in epidermal growth factor (EGF; MIM 131530)-like repeats or thrombospondin (THBS; see MIM 188060) type-1 repeats. POFUT2 is an O-fucosyltransferase that use THBS type-1 repeats as substrates (Luo et al., 2006 [PubMed 16464857]).[supplied by OMIM, Mar 2008]

Additional Information

Gene ID	23275
Other Names	Dmel_CG14789; CG14789; Dmel\CG14789; EG:BACN32G11.6; O-FUT2; O-fut; OFut2; C21orf80; FUT13; 2310011G23Rik; OFUT2_DROME; Peptide-O-fucosyltransferase 2 (O-FucT-2); 2.4.1.221; OFUT2_HUMAN; POFUT2; KIAA0958; OFUT2_MOUSE; protein O-fucosyltransferase 2; chromosome 21 open reading frame 80; peptide-O-fucosyltransferase; GDP-fucose protein O-fucosyltransferase 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	POFUT2
Synonyms	C21orf80, FUT13, KIAA0958
Function	GDP-fucose protein O-fucosyltransferase involved in one of the two pathways responsible for protein O-linked fucosylation, a unique post-translational modification of cysteine-knotted proteins that regulates various biological functions. This pathway targets proteins with Thrombospondin type-1 (TSP1) repeats (TSR) in the endoplasmic reticulum. Catalyzes the reaction that attaches fucose through an O-glycosidic linkage to a conserved serine or threonine residue in the consensus sequence C1-X-X-S/T-C2 of thrombospondin type I repeats (TSRs) where C1 and C2 are the first and second cysteines of the repeat, respectively (PubMed:22588082). O-fucosylates members of several protein families including the ADAMTS, the thrombospondin (TSP) and spondin families (Probable) (PubMed:17395588). Required for the proper secretion of ADAMTS family members such as ADAMTSL1 and ADAMTS13 (PubMed:17395588, PubMed:17395589). The O-fucosylation of TSRs is also required for restricting epithelial to mesenchymal transition (EMT), maintaining the correct patterning of mesoderm and localization of the definite endoderm (By similarity).
Cellular Location	Endoplasmic reticulum. Golgi apparatus. Note=Mainly located in the endoplasmic reticulum.
Tissue Location	Isoform A is expressed in fetal liver and peripheral blood lymphocytes. Isoform B is expressed in spleen, lung, testis, bone marrow, thymus, pancreas, prostate, fetal brain, fetal liver and fetal kidney. Isoform C is expressed in brain, heart, spleen, liver, lung, stomach, testis, placenta, skin, thymus, pancreas, mammary gland, prostate, fetal brain, fetal liver and fetal heart

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.