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LFNG Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9524c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q8NES3
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24078
Calculated MW	41773
Antigen Region	86-114

Additional Information

Gene ID	3955
Other Names	Beta-1, 3-N-acetylglucosaminyltransferase lunatic fringe, O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase, LFNG
Target/Specificity	This LFNG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 86-114 amino acids from the Central region of human LFNG.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	LFNG Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LFNG (HGNC:6560)
Function	Glycosyltransferase that initiates the elongation of O-linked fucose residues attached to EGF-like repeats in the extracellular domain of Notch molecules.

Modulates NOTCH1 activity by modifying O- fucose residues at specific EGF-like domains resulting in inhibition of NOTCH1 activation by JAG1 and enhancement of NOTCH1 activation by DLL1 via an increase in its binding to DLL1 (By similarity). Decreases the binding of JAG1 to NOTCH2 but not that of DLL1 (PubMed:11346656). Essential mediator of somite segmentation and patterning (By similarity).

Cellular Location Golgi apparatus {ECO:0000250|UniProtKB:O09010}. Golgi apparatus membrane; Single-pass type II membrane protein

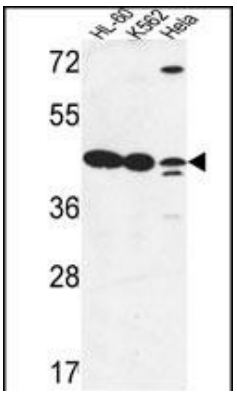
Background

LFNG belongs to evolutionarily conserved glycosyltransferases that act in the Notch signaling pathway to define boundaries during embryonic development. While their genomic structure is distinct from other glycosyltransferases, fringe proteins have a fucose-specific beta-1,3-N-acetylglucosaminyltransferase activity that leads to elongation of O-linked fucose residues on Notch, which alters Notch signaling. This protein is predicted to be a single-pass type II Golgi membrane protein but it may also be secreted and proteolytically processed like the related proteins in mouse and Drosophila (PMID: 9187150).

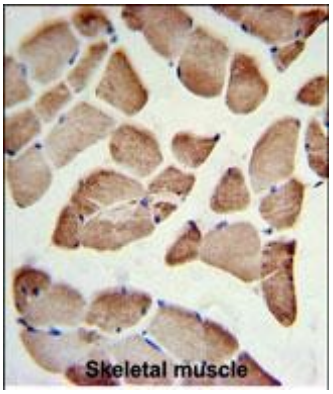
References

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Sparrow, D.B., et al. Am. J. Hum. Genet. 78(1):28-37(2006)
Cole, S.E., et al. Dev. Cell 3(1):75-84(2002)
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Images

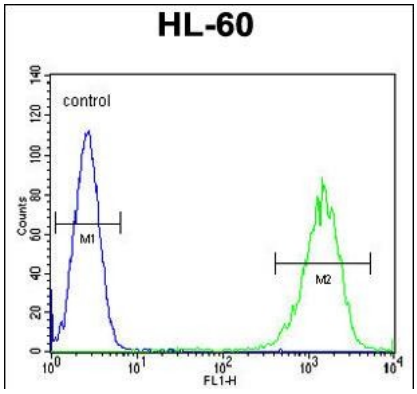


LFNG Antibody (Center) (Cat. #AP9524c) western blot analysis in HL-60,K562,Hela cell line lysates (35ug/lane).This demonstrates the LFNG antibody detected the LFNG protein (arrow).



LFNG Antibody (Center)(Cat. #AP9524c) IHC analysis in formalin fixed and paraffin embedded skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the LFNG Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

LFNG Antibody (Center) (Cat. #AP9524c) flow cytometric



analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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