Product Name: Lunatic Fringe Rabbit Polyclonal Antibody
Catalog #: APRab13491

Summary

Production Name	Lunatic Fringe Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	LFNG
Alternative Names	LFNG; Beta-1; 3-N-acetylglucosaminyltransferase lunatic fringe; O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
Gene ID	3955.0
SwissProt ID	Q8NES3.The antiserum was produced against synthesized peptide derived from human LFNG. AA range:121-170

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:10000
Molecular Weight	42kD

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Background

This gene is a member of the fringe gene family which also includes radical and manic fringe genes. They all encode 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 gene product 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). Mutations in this gene have been associated with autosomal recessive spondylocostal dysostosis 3. Multiple transcript variants encoding different isoformsalternative products:Experimental confirmation may be lacking for some isoforms,catalytic activity:Transfers a beta-D-GlcNAc residue from UDP-D-GlcNAc to the fucose residue of a fucosylated protein acceptor.,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,disease:Defects in LFNG are the cause of spondylocostal dysostosis autosomal recessive type 3 (SCDO3) [MIM:609813]. Autosomal recessive spondylocostal dysostosis is a rare condition of variable severity associated with vertebral and rib segmentation defects. The main skeletal malformations include fusion of vertebrae, hemivertebrae, fusion of certain ribs, and other rib malformations. Deformity of the chest and spine (severe scoliosis, kyphoscoliosis and lordosis) is a natural consequence of the malformation and leads to a dwarf-like appearance. As the thorax is small, infants frequently have respiratory insufficiency and repeated respiratory infections resulting in life-threatening complications in the first year of life.,function:Glycosyltransferase that initiates the elongation of O-linked fucose residues attached to EGF-like repeats in the extracellular domain of Notch molecules. Decreases the binding of JAGGED1 to NOTCH2 but not that of DELTA1. Essential mediator of somite segmentation and patterning.,online information:Beta-1,3-N-acetylglucosaminyltransferase lunatic fringe,online information:GlycoGene database,PTM:A soluble form may be derived from the membrane form by proteolytic processing .,similarity:Belongs to the glycosyltransferase 31 family.,

Research Area

Notch;

Image Data

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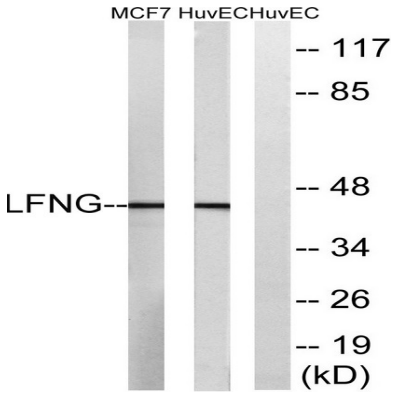
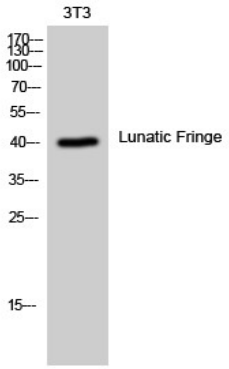


Western blot analysis of lysates from HUVEC and MCF-7 cells, using LFNG Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of 3T3 cells using Lunatic Fringe Polyclonal Antibody diluted at 1：1000

Note

For research use only.