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LFNG Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a full length recombinant LFNG.
Catalog # AT2699a

Product Information

Application	WB, E
Primary Accession	Q8NES3
Other Accession	BC014851
Reactivity	Human, Mouse
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	1F9
Calculated MW	41773

Additional Information

Gene ID	3955
Other Names	Beta-1, 3-N-acetylglucosaminyltransferase lunatic fringe, O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase, LFNG
Target/Specificity	LFNG (AAH14851, 1 a.a. ~ 250 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	LFNG Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

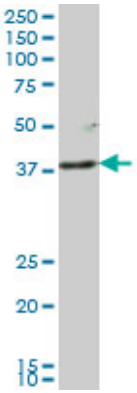
Background

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 isoforms have been found for this gene.

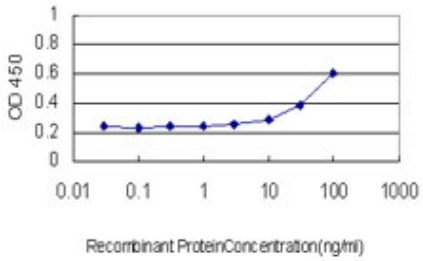
References

Mutation of the fucose-specific beta1,3 N-acetylglucosaminyltransferase LFNG results in abnormal formation of the spine. Dunwoodie SL. Biochim Biophys Acta, 2009 Feb. PMID 19061953.Activation of Notch signaling in human colon adenocarcinoma. Reedijk M, et al. Int J Oncol, 2008 Dec. PMID 19020755.Mutation of the LUNATIC FRINGE gene in humans causes spondylocostal dysostosis with a severe vertebral phenotype. Sparrow DB, et al. Am J Hum Genet, 2006 Jan. PMID 16385447.Transcriptome analysis of human gastric cancer. Oh JH, et al. Mamm Genome, 2005 Dec. PMID 16341674.Complete sequencing and characterization of 21,243 full-length human cDNAs. Ota T, et al. Nat Genet, 2004 Jan. PMID 14702039.

Images



LFNG monoclonal antibody (M03), clone 1F9 Western Blot analysis of LFNG expression in NIH/3T3 (Cat # L018V1).



Detection limit for recombinant GST tagged LFNG is approximately 3ng/ml as a capture antibody.