

#66472 Store at -20°C

Lunatic Fringe (D6V2V) Rabbit mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	42	Rabbit IgG	#Q8NES3	3955

Product Usage Information

Application

Western Blotting

Immunoprecipitation

Dilution

1:1000

1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Lunatic Fringe (D6V2V) Rabbit mAb recognizes endogenous levels of total Lunatic Fringe protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu74 of human Lunatic Fringe protein.

Background

Lunatic Fringe (Beta-1,3-N-acetylglucosaminyltransferase, LFNG) is a single-pass type II Golgi membrane glycosyltransferase that catalyzes the elongation of O-linked fucose residues on EGF-like repeats of Notch signaling molecules. Fucosylation of EGF-like repeats serves to fine-tune Notch ligand-receptor interactions, thereby modulating downstream Notch pathway activity (1). Studies in genetic mouse models have shown that Lunatic Fringe-mediated Notch regulation is critical for somite patterning during vertebrate embryogenesis (2-4). Consistent with this, loss-of-function mutations in human LFNG are associated with spondylocostal dysostoses, a heritable skeletal growth disorder characterized by malformations of the spinal column and thoracic structures (5). Lunatic Fringe continues to modulate Notch signaling postnatally (6), and is implicated as a putative tumor suppressor in multiple Notch-related cancers (7, 8).

Background References

- Shimizu, K. et al. (2001) *J Biol Chem* 276, 25753-8.
- Evrard, Y.A. et al. (1998) *Nature* 394, 377-81.
- Zhang, N. and Gridley, T. (1998) *Nature* 394, 374-7.
- Serth, K. et al. (2015) *PLoS One* 10, e0123776.
- Sparrow, D.B. et al. (2006) *Am J Hum Genet* 78, 28-37.
- Mukherjee, S. et al. (2014) *J Immunol* 192, 996-1003.
- Zhang, S. et al. (2014) *Neoplasia* 16, 158-67.
- Zhang, S. et al. (2015) *Oncogene* , .

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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