

Store at  
-20C  
#66472**Lunatic Fringe (D6V2V) Rabbit mAb**

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

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

**W:** Western Blotting **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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