

Product datasheet for RG224281

OriGene Technologies, Inc.

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Lunatic Fringe (LFNG) (NM_001040167) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Lunatic Fringe (LFNG) (NM 001040167) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: LFNG

Synonyms: SCDO3

Mammalian Cell Neomycin

Selection:

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG224281 representing NM_001040167
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

CTGCCCCCGCCCGCCGACGGCCACCCGCGCCCCCTGGCCGAGCCGCTCGCGCCCCGAGACGTCTTCAT CGCTGTCAAGACCACAAAAAGTTCCACCGCGCGCGCCTCGACCTGCTGCTGGAGACCTGGATCTCGCGC CACAAGGAGATGACGTTCATCTTCACTGACGGGGAAGATGAGGCCCTGGCCAGGCACACGGGCAACGTGG TCATCACAAACTGCTCGGCCGCCCACAGCCGCCAGGCGCTGTCCTGCAAGATGGCCGTGGAGTATGACCG CTTCATCGAGTCCGGCAGGAAGTGGTTCTGCCACGTGGACGATGACAACTACGTCAACCTGCGGGCCCTG CTGCGGCTGCTGGCCAGCTACCCGCACACGCGGGACGTCTACGTCGGCAAGCCCAGCCTGGACAGGCCCA TCCAGGCCATGGAGCGGGTCAGCGAGAACAAGGTGCGTCCTGTCCACTTCTGGTTTGCCACGGGCGGCGC TGGCTTCTGCATCAGCCGTGGGCTGGCTCTGAAGATGAGCCCGTGGGCCAGCGGGGGTCACTTCATGAAT ACGGCTGAGCGGATCCGGCTGCCTGATGACTGCACCATCGGCTACATCGTGGAGGCCCTGCTGGGTGTGC CCCTCATCCGCAGCGGCCTCTTCCACTCCCACCTGGAGAACCTGCAGCAGGTGCCCACCTCGGAGCTCCA CGAGCAGGTGACGCTGAGCTACGGTATGTTTGAAAACAAGCGGAACGCCGTCCACGTGAAGGGGCCCTTC TCGGTGGAGGCCGACCCATCCAGGTTCCGCTCCATCCACTGCCACCTGTACCCGGACACACCCTGGTGTC CCCGCACTGCCATCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA





Protein Sequence: >RG224281 representing NM_001040167

Red=Cloning site Green=Tags(s)

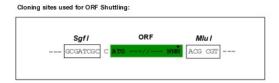
MLKRCGRRLLLALAGALLACLLVLTADPPPPPLPAERGRRALRSLAGPAGAAPAPGLGAAAAAPGALVRD VHSLSEYFSLLTRARRDAGPPPGAAPRPADGHPRPLAEPLAPRDVFIAVKTTKKFHRARLDLLLETWISR HKEMTFIFTDGEDEALARHTGNVVITNCSAAHSRQALSCKMAVEYDRFIESGRKWFCHVDDDNYVNLRAL LRLLASYPHTRDVYVGKPSLDRPIQAMERVSENKVRPVHFWFATGGAGFCISRGLALKMSPWASGGHFMN TAERIRLPDDCTIGYIVEALLGVPLIRSGLFHSHLENLQQVPTSELHEQVTLSYGMFENKRNAVHVKGPF SVEADPSRFRSIHCHLYPDTPWCPRTAIF

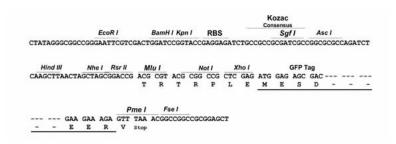
TRTRPLE - GFP Tag - V

Restriction Sites:

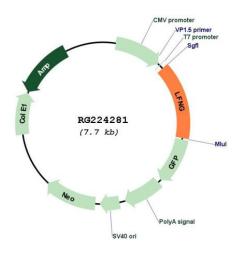
Sgfl-Mlul

Cloning Scheme:





Plasmid Map:



ACCN: NM 001040167

Lunatic Fringe (LFNG) (NM_001040167) Human Tagged ORF Clone - RG224281

ORF Size: 1137 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube

containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method: 1. Centrifuge at 5,000xg for 5min.

2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.

3. Close the tube and incubate for 10 minutes at room temperature.

4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid

at the bottom.

5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of

shipping when stored at -20°C.

RefSeq: <u>NM 001040167.2</u>

RefSeq Size: 2384 bp
RefSeq ORF: 1140 bp
Locus ID: 3955
UniProt ID: Q8NES3

Cytogenetics: 7p22.3

Protein Families: Transmembrane

Protein Pathways: Notch signaling pathway

Gene Summary: This gene is a member of the glycosyltransferase 31 gene family. Members of this gene

family, which also includes the MFNG (GeneID: 4242) and RFNG (GeneID: 5986) genes, 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, these 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. The protein encoded by this gene 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.

[provided by RefSeq, May 2018]