

## Product datasheet for RC224281

### 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:	Myc-DDK
Symbol:	Lunatic Fringe
Synonyms:	SCDO3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224281 representing NM_001040167 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGCTCAAGCGCTGCGGCCGGCGCTGCTGCTGGCGCTGGCGGGCGCGCTGCTCGCTGCCTGCTGGTGC  
TCACCGCCGACCCGCGCCGCTCCACTGCCCGCGAGCGCGCCGGCGCGCTGCGCAGCCTGGCGGG  
CCCCGCGGGGCTGCCCGCGCCGGGCTGGGGCGCGCGCGCGCCGGGGCGCTGGTCCGCGAC  
GTGCACAGTCTGTCCGACTTCCAGCCTGCTCACCCGCGCGCAGAGATGCGGGCCCGCCCGGGGG  
CTGCCCCCGCCCGCCGACGGCCACCCGCGCCCTGGCCGAGCCGCTCGCGCCCGAGACGTTCAT  
CGCTGTCAAGACCACAAAAAGTTCCACCGCGCGCCTCGACCTGCTGCTGGAGACCTGGATCTCGCGC  
CACAAGGAGATGACGTTTCATCTTCACTGACGGGAAGATGAGGCCTGGCCAGGCACACGGCAACGTGG  
TCATCACAACTGCTCGGCCGCCACAGCCGCCAGGCGCTGTCTGCAAGATGGCCGTGGAGTATGACCG  
CTTCATCGAGTCCGGCAGGAAGTGGTCTGCCACGTGGACGATGACAACCTACGTCAACCTGCGGGCCCTG  
CTGCGGCTGCTGGCCAGCTACCCGACACGCGGGACGTCTACGTGCGCAAGCCAGCCTGGACAGGCCCA  
TCCAGGCCATGGAGCGGGTCAGCGAGAACAAAGGTGCGTCTGTCCACTTCTGGTTTGCCACGGCGGCGC  
TGGCTTCTGCATCAGCCGTGGGCTGGCTCTGAAGATGAGCCGTGGCCAGCGGGGTCACCTCATGAAT  
ACGGCTGAGCGGATCCGGCTGCCTGATGACTGCACCATCGGCTACATCGTGGAGCCCTGCTGGGTGTC  
CCCTCATCCGACGCGCCTCTTCCACTCCACCTGGAGAACCTGCAGCAGGTGCCACCTCGGAGCTCCA  
CGAGCAGGTGACGCTGAGCTACGGTATGTTTGAACAAGCGGAACGCCCTCCACGTGAAGGGCCCTTC  
TCGGTGGAGGCCGACCCATCCAGGTTCCGCTCCATCCACTGCCACCTGTACCCGGACACACCCTGGTGT  
CCCGACTGCCATCTTC

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC224281 representing NM\_001040167  
 Red=Cloning site Green=Tags(s)

MLKRCGRRLLLALAGALLACLLVLTADPPPPPLPAERGRRALRSLAGPAGAAPAGLGAAAAAPGALVRD  
 VHSLSEYFSLLTRARRDAGPPPGAAPRPADGHRPLAEPLAPRDVFI<sup>+</sup>AVKTTKKFHRARLDLLE<sup>+</sup>TWISR  
 HKEMTFIFTDGEDEALARHTGNVVITNCSAAHSRQALSCKMAVEYDRFIESGRKWFCHVDDDDNYVNLRAL  
 LRLLASYPHTRDYYVVGKPSLDRPIQAMERVSENKVRPVHFWFATGGAGFCISRLGALKMSPWASGGHFMN  
 TAERIRLPDDCTIGYIVEALLGVPLIRSLFHS<sup>+</sup>LENLQQVPTSELHEQVTL<sup>+</sup>SYGMFENKRN<sup>+</sup>AVHVKGPF  
 SVEADPSRFRSIHCHLYPDTPWCPRTAIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001040167

**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:** [NM\\_001040167.2](#)

**RefSeq Size:** 2384 bp

**RefSeq ORF:** 1140 bp

**Locus ID:** 3955

**UniProt ID:** [Q8NES3](#)

**Cytogenetics:** 7p22.3

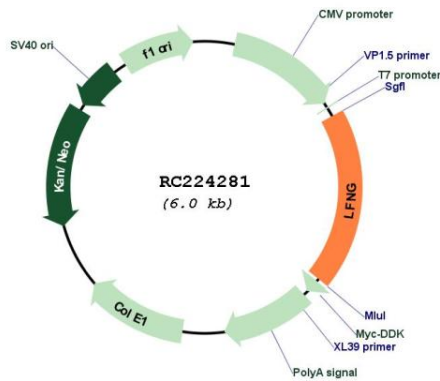
**Protein Families:** Transmembrane

**Protein Pathways:** Notch signaling pathway

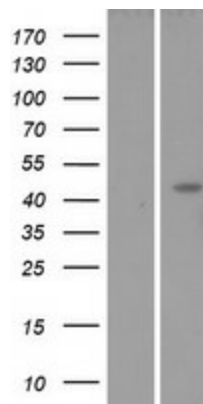
**MW:** 41.77 kDa

**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]

Product images:



Circular map for RC224281



Western blot validation of overexpression lysate (Cat# [LY421706]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224281 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).