

Product datasheet for **RC223354**

Lunatic Fringe (LFNG) (NM_001040168) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lunatic Fringe (LFNG) (NM_001040168) 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:	>RC223354 representing NM_001040168 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCAAGCGCTGCGGCCGGCGCTGCTGCTGGCGCTGGCGGGCGCGCTGCTCGCTGCCTGCTGGTGC
TCACCGCCGACCCGCGCCGCTCCACTGCCCGCGAGCGCGGCCGGCGCGCTGCGCAGCCTGGCGGG
CCCCGCGGGGCTGCCCGCGCCGGGCTGGGGCGGCGGCGCGGCCGGGGCGCTGGTCCGCGAC
GTGCACAGTCTGTCCGACTTTCAGCCTGCTCACCCGCGCGCAGAGATGCGGGCCCGCCCGGGGG
CTGCCCCCGCCCGCCGACGGCCACCCGCGCCCTGGCCGAGCCGCTCGCGCCCGAGACGTTCAT
CGCTGTCAAGACCACAAAAAGTTCCACCGCGCGCCTCGACCTGCTGCTGGAGACCTGGATCTCGCGC
CACAAGGAGATGACGTTTCATCTTCACTGACGGGAAGATGAGGCCTGGCCAGGCACACGGCAACGTGG
TCATCACAACTGCTCGGCCGCCACAGCCGCCAGGCGCTGTCTGCAAGATGGCCGTGGAGTATGACCG
TTTCATCGAGTCCGGCAGGAAGTGGTCTGCCACGTGGACGATGACAACCTACGTCAACCTGCGGGCCCTG
CTGCGGCTGCTGGCCAGTACCCGACACGCGGGACGTCTACGTGCGCAAGCCAGCCTGGACAGGCCCA
TCCAGGCCATGGAGCGGGTACGCGAGAACAAGGTGCGTCTGCTCACTTCTGGTTTGGCACGGCGGCGC
TGGCTTCTGCATCAGCCGTGGGCTGGCTCTGAAGATGAGCCGTGGGCCAGCGGGGTCACTTCATGAAT
ACGGCTGAGCGGATCCGGCTGCCTGATGACTGCACCATCGGCTACATCGTGGAGCCCTGCTGGGTGTC
CCCTCATCCGACGCGCCTCTTCCACTCCACCTGGAGAACCTGCAGCAGGTGCCACCTCGGAGCTCCA
CGAGCAGGTGACGCTGAGCTACGGTATGTTTGAACAAGCGGAACGCCGTCACGTGAAGGGCCCTTC
TCGGTGGAGGCCGACCCATCCAGGTGGGAAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC223354 representing NM_001040168
Red=Cloning site Green=Tags(s)

MLKRCGRRLLLALAGALLACLLVLTADPPPPPLPAERGRRLRSLAGPAGAAPAPGLGAAAAAPGALVRD
 VHSLSEYFSLLTRARRDAGPPGAAPRPADGHRPLAEPLAPRDVFI AVKTTKFFHRARLDLLETWISR
 HKEMTFIFTDGEDEALARHTGNVVITNCSAAHSRQALSCKMAVEYDRFIESGRKWFCHVDDDDNYVNLRAL
 LRLLSYPHTRDYYVVGKPSLDRPIQAMERVS ENKVRPVHFWFATGGAGFCISRGLALKMSPWASGGHFMN
 TAERIRLPDDCTIGYIVEALLGVPLIRSGLFHSHLENLQQVPTSELHEQVTL SYGMFENKRNVAHVKGPF
 SVEADPSRWGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8054_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001040168

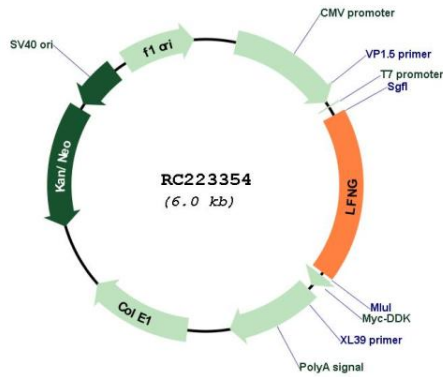
ORF Size: 1083 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

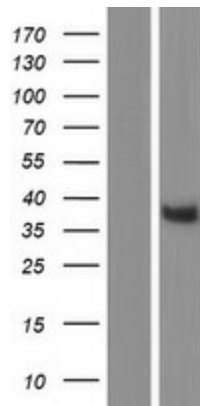
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<ol style="list-style-type: none">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_001040168.2
RefSeq Size:	1403 bp
RefSeq ORF:	1086 bp
Locus ID:	3955
UniProt ID:	Q8NES3
Cytogenetics:	7p22.3
Protein Families:	Transmembrane
Protein Pathways:	Notch signaling pathway
MW:	39.59 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC223354



Western blot validation of overexpression lysate (Cat# [LY421707]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223354 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).