

Product datasheet for **SC328499**

Lunatic Fringe (LFNG) (NM_001166355) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lunatic Fringe (LFNG) (NM_001166355) Human Untagged Clone
Tag:	Tag Free
Symbol:	Lunatic Fringe
Synonyms:	SCDO3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC328499 representing NM_001166355. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**
 ATGGATGAACAGACAGGAAGGCTCAGGCTGGACACGTATTGTATGAGTGCCAAGCAGATCTGGGCATGG
 AGCAAATGCTCAGGAAGGCTGTGGGATGAGCACATGAAATGGATGGAAGGATGGACGGACAGATGGACA
 GATGGATGGATGGATGGATGGATGAGTGGAGCCCAACACCAGCTCTCAGGTCCTACGGAGGTGGC
 CTCTCTCAGCAGACGTTTCATCTTCACTGACGGGGAAGATGAGGCCCTGGCCAGGCACACGGGCAACGTG
 GTCATCACAACTGCTCGGCCGCCACAGCCGCCAGGCGCTGTCCTGCAAGATGGCCGTGGAGTATGAC
 CGCTTCATCGAGTCCGGCAGGAAGTGGTTCTGCCACGTGGACGATGACAACTACGTCAACCTGCGGGCC
 CTGCTGCGGCTGCTGGCCAGTACCCGCACACGCGGGACGTCTACGTCCGCAAGCCAGCCCTGGACAGG
 CCCATCCAGGCCATGGAGCGGGTCAGCGAGAACAAGGTGCGTCTGTCCACTTCTGGTTTGCCACGGGC
 GGCCTGGCTTCTGCATCAGCCGTGGGCTGGCTCTGAAGATGAGCCCGTGGGCCAGCGGGGGTCACTTC
 ATGAATACGGCTGAGCGGATCCGGCTGCCTGATGACTGCACCATCGGCTACATCGTGGAGGCCCTGCTG
 GGTGTGCCCTCATCCGAGCGGCCTCTTCCACTCCCACCTGGAGAACCTGCAGCAGGTGCCACCTCG
 GAGCTCCACGAGCAGGTGACGCTGAGCTACGGTATGTTTGAACAAGCGGAACGCCGTCCACGTGAAG
 GGGCCCTTCTCGGTGGAGGCCACCCATCCAGGTTCCGCTCCATCCACTGCCACCTGTACCCGGACACA
 CCCTGGTGTCCCGCACTGCCATCTT**AG**
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001166355
Insert Size:	927 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001166355.1
RefSeq Size:	2280 bp
RefSeq ORF:	927 bp
Locus ID:	3955
UniProt ID:	Q8NES3
Cytogenetics:	7p22.3
Protein Families:	Transmembrane
Protein Pathways:	Notch signaling pathway
MW:	35.3 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]

Transcript Variant: This variant (3) has multiple differences, compared to variant 1. These differences result in a distinct 5' UTR and cause translation initiation at an alternate start codon, compared to variant 1. The encoded protein (isoform c) has a shorter and distinct N-terminus, compared to isoform 1.