

## Product datasheet for RC211069

### FUT3 (NM\_000149) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FUT3 (NM_000149) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FUT3
Synonyms:	CD174; FT3B; FucT-III; LE; Les
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211069 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATCCCTGGGTGCAGCCAAGCCACAATGGCCATGGCGCGCTGTCTGGCCGCACTGCTATTTACAGC  
TGCTGGTGGCTGTGTGTTTCTTCTCCTACCTGCGTGTGTCCCGAGACGATGCCACTGGATCCCTAGGGC  
TCCAGTGGTCTCCCGACAGGACACCACTCCCACCCGCCCCACCTCCTGATCCTGCTATGGACATGG  
CCTTTCCACATCCCTGTGGCTCTGTCCCGCTGTTCCAGAGATGGTCCCGGCACAGCCGACTGCCACATCA  
CTGCCGACGCAAGGTGTACCCACAGGCAGACACGGTCATCGTGCACCACTGGGATATCATGTCCAACCC  
TAAGTCACGCCTCCACCTTCCCGAGGCCGAGGGCAGCGCTGGATCTGGTTCAACTGGAGCCACCC  
CCTAACTGCCAGCACCTGGAAGCCCTGGACAGATACTTCAATCTCACCATGTCCTACCGCAGCGACTCCG  
ACATCTTACGCCCTACGGCTGGCTGGAGCCGTGGTCCGGCCAGCCTGCCACCCACCGCTCAACCTCTC  
GGCCAAGACCGAGCTGGTGGCTGGGCGGTGTCCAAGTGGAGCCGACTCAGCCAGGGTGCCTACTAC  
CAGAGCCTGCAGGCTCATCTCAAGGTGGACGTGTACGGACGCTCCACAAGCCCTGCCAAGGGGACCA  
TGATGGAGACGCTGTCCCGGTACAAGTTCTACCTGGCCTTCGAGAAGTCTTGCACCCCGACTACATCAC  
CGAGAAGCTGTGGAGGAACGCCCTGGAGCCCTGGCCGTGCCCGTGGTGTGGCCCCAGCAGAAGCAAC  
TACGAGAGTTCTGCCACCCGACGCTTCCACAGTGGACGACTCCAGAGCCCAAGGACCTGGCCC  
GGTACCTGCAGGAGCTGGACAAGGACCAGCCCGCTACCTGAGCTACTTTCGCTGGCGGGAGACGCTGCG  
GCCTCGCTCCTTACGCTGGGCACTGGATTTCTGCAAGGCCTGCTGGAACTGCAGCAGGAATCCAGGTAC  
CAGACGGTGCAGCATAGCGGCTTGGTTACCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC211069 protein sequence  
Red=Cloning site Green=Tags(s)

MDPLGAAKPQWPWRRCLAALLFQLLVAVCFSSYLVRVSRDDATGSPRAPSGSSRQDTTPTRPTLLILLWTW  
 PFHIPVALSRCSEMPGTADCHITADRVYYPQADTVIVHHWDIMSNPKSRLPPSPRPQGGQRWIWFNLEPP  
 PNCQHLEALDRYFNL TMSYRSDSDIFTPYGWLEPWGQPAHPPLNLSAKTELVAWAVSNWKPDSARVRY  
 QSLQAHLKVDVYGRSHKPLPKGTMETLSRYKFYLAFENSLHPDYITEKLWRNALEAWAVPVVLGPRSRSN  
 YERFLPPDAFIHVDDFQSPKDLARYLQELDKDHARYLSYFRWRETLRPRFSWALDFCKACWKLQQESRY  
 QTVRSIAAWFT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6378\\_d09.zip](https://cdn.origene.com/chromatograms/mk6378_d09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000149

**ORF Size:** 1083 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_000149.4](#)

**RefSeq Size:** 2607 bp

**RefSeq ORF:** 1086 bp

**Locus ID:** 2525

**UniProt ID:** [P21217](#)

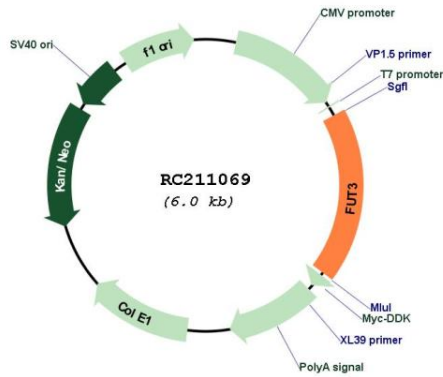
**Cytogenetics:** 19p13.3

**Protein Pathways:** Glycosphingolipid biosynthesis - lacto and neolacto series, Metabolic pathways

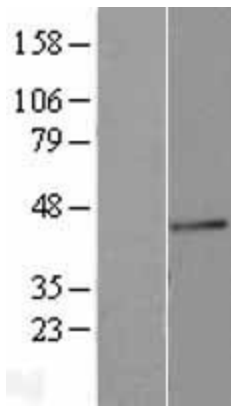
**MW:** 42.1 kDa

**Gene Summary:** The Lewis histo-blood group system comprises a set of fucosylated glycosphingolipids that are synthesized by exocrine epithelial cells and circulate in body fluids. The glycosphingolipids function in embryogenesis, tissue differentiation, tumor metastasis, inflammation, and bacterial adhesion. They are secondarily absorbed to red blood cells giving rise to their Lewis phenotype. This gene is a member of the fucosyltransferase family, which catalyzes the addition of fucose to precursor polysaccharides in the last step of Lewis antigen biosynthesis. It encodes an enzyme with alpha(1,3)-fucosyltransferase and alpha(1,4)-fucosyltransferase activities. Mutations in this gene are responsible for the majority of Lewis antigen-negative phenotypes. Differences in the expression of this gene are associated with host susceptibility to viral infection. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RC211069



Western blot validation of overexpression lysate (Cat# [LY420415]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC224601] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).