

Product datasheet for MC227027

Fut1 (NM_001271981) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Fut1 (NM_001271981) Mouse Untagged Clone
Tag: Tag Free
Symbol: Fut1
Synonyms: MFUT-1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >MC227027 representing NM_001271981
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAACTACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGGTATGCCTACCTCATCCATTGCAGACATCTAATGGCTCCCCTTCCTGTCTGAGCAGTCCTCCTCAC
 TCTCTGGGACTTGGACAATCACCCAGGAGGCAGGTTTGGTAACCAGATGGGGCAGTATGCTACATTGCT
 GGCCCTAGCCAGCTCAATGGTCGCCAAGCCTTCATCAACCTGAGATGCATGCCGCCCTGGCCCCGTG
 TTCCGAATCTCCCTGCCAGTGTGGACCCTGAGGTGGACAGCCTCACACCTTGGCAGCACTTAGTCCTAC
 ATGACTGGATGTCAGAGGAGTACTCCCATCTGGAGGACCATTTCTCAAGCTGTCTGGTTTCCCCTGCTC
 TTGGACCTTTTTCCATCATCTTCGGGAACAGATTCGTAGGGAATTCAGTCTGCATAACCATCTACGGGAA
 GGTGCCCAGTACCTGTTGAGCGGGCTCCGTATAGGCCCGCGGGCATCCGCCCTCATACCTTTGTGGGTG
 TCCATGTGCGTCGTGGAGACTATCTGGAGGTGATGCCCAATCGCTGGAAGGGTGTGGTGGGTGACCGAGC
 TTACCTCCAGCAAGCCATGGACTGGTTCCGGGCGCGACACAAAGACCCCATCTTTGTGGTCAACGCAAT
 GGCATGAAATGGTGTGGGAGAACATTGACACATCCATGGTGTGTTGCTCGCTGGCAATGGACAGG
 AGGGTACACCGGGGAAGGACTTTGCACTTCTCACACAGTGTAAACCACCATCATGACTATTGGCACCTT
 TGGCTTCTGGGCTGCCTACTTAGCTGGTGGAGACCGGTCTACCTTGCAAACCTTACCCTGCCAGATTG
 GAGTTTCTGAAGATCTTCAGGCCTGAGGCTGCCTTCCTGCCTGAGTGGGTGGGCATCAATGCAGACTTGT
 CCCCGCTGCAGGCTCAATTTGACCCCTGGAAGCCAGACAGTCTTTTAGATTGGT**CTGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001271981


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Insert Size:	969 bp
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:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001271981.1, NP_001258910.1</u>
RefSeq Size:	2442 bp
RefSeq ORF:	969 bp
Locus ID:	14343
UniProt ID:	<u>O09160</u>
Cytogenetics:	7 29.39 cM

Gene Summary:

This gene is one of three genes in mouse which encode a galactoside 2-L-fucosyltransferase. These genes differ in their developmental- and tissue-specific expression. The encoded type II membrane protein is anchored in the Golgi apparatus and controls the final step in the creation of alpha (1,2) fucosylated carbohydrates by the addition of a terminal fucose in an alpha (1,2) linkage. This enzyme is required for the synthesis of the Lewis antigen as well as the H-antigen, a precursor of the A and B antigens of the ABH histo-blood group. The biological function of the fucosylated carbohydrate products is thought to involve cell-adhesion and interactions with microorganisms. Disruption of this gene impairs development of the olfactory nerve and maturation of the glomerular layer of the main olfactory bulb. Alternative splicing results in multiple transcript variants which encode distinct isoforms. [provided by RefSeq, Dec 2012]

Transcript Variant: This variant (2) uses an alternate splice site at the 5' end of the coding exon and uses an in-frame downstream start codon, compared to variant 1. The encoded isoform (2) has a shorter N-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript from the same strain was available for the full length of the gene. The extent of this transcript is supported by transcript alignments and orthologous data.