

Product datasheet for **RG205683**

FUCA1 (NM_000147) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FUCA1 (NM_000147) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FUCA1
Synonyms:	FUCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG205683 representing NM_000147
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGTCGCGGCCGGCGGGTCCCAGCGCTGTTGCTGCTGCTCTTCTCGGAGCGGCCGAGTCGGTGC
 GTCGGGCCAGCCTCCGCGCCGCTACACCCAGACTGGCCGAGCCTGGATTCTCGGCCGCTGCCGGCCTG
 GTTCGACGAAGCCAAGTTCGGGGTGTTCATCCACTGGGGCGTGTCTCGGTGCCCGCTGGGGCAGCGAG
 TGGTTCGGTGGCACTGGCAGGGCGAGGGCGGCCGAGTACCAGCGCTTCATGCGCGACAACACCCGC
 CCGGCTTCAGCTACGCCACTTCGGACCGCAGTTCAGTGCAGCTTCTCCACCCGGAGGAGTGGCCGA
 CCTCTCCAGGCCGCGGGCGCAAGTATGTAGTTTTGACGACAAAGCATCACGAAGGCTTCACAACTGG
 CCGAGTCTGTGCTTGGAACTGAACTCAAAGACGTGGGGCCTCATCGGGATTGGTTGGTGAATTGG
 GAACAGCTCTCCGAAGAGGAACATCCGCTATGGACTATACCACTCACTTTAGAGTGGTCCATCCACT
 CTATCTACTTGATAAGAAAAATGGCTTCAAACACAGCATTTTGTGAGTCAAAAAACAATGCCAGAGCTG
 TACGACCTTGTTAACAGCTATAAACCTGATCTGATCTGGTCTGATGGGGAGTGGGAATGTCTGATACTT
 ACTGAACTCCACAAATTTCTTTCATGGCTCTACAATGACAGCCCTGTCAAGGATGAGGTGGTAGTAAA
 TGACCGATGGGGTCAAGACTGTTCTGTCACTGGAGGATACTATAACTGTGAAGATAAATCAAGCCA
 CAGAGCTTGCCAGATCACAAGTGGGAGATGTGCACCAGCATTGACAAGTTTTCTGGGGCTATCGTCGTG
 ACATGGCATTGTCTGATGTTACAGAAGAATCTGAAATCATTTCGGAACGGTTGACAGAGTAAGTTTGGG
 AGGCAACTATCTTCTGAACATTGGACCAACTAAAGATGGACTGATTGTTCCCATCTTCAAGAAAGGCTT
 CTTGCTGTTGGGAAATGGCTGAGCATCAATGGGGAGGCTATCTATGCCTCAAACCATGGCGGGTCAAT
 GGGAAAAGAACAACATCTGTATGGTATACCTCAAAGGGATCGGCTGTTTATGCCATTTTCTGCACTG
 GCCAGAAAATGGAGTCTTAAACCTTGAATCCCCATAACTACCTCAACTCAAAGATAAACAATGCTGGGA
 ATTCAAGGAGATCTGAAGTGGTCCACAGATCCAGATAAAGGTCTCTTCTCTCTACCCAGTTGCCAC
 CCTCTGCTGTCCCGCAGAGTTTCTTGGACTATAAAGCTGACAGGAGTGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG205683 representing NM_000147
 Red=Cloning site Green=Tags(s)

MRSRPAGPALLLLLLFLGAAESVRRQPPRRYTPDWPSLDSRPLPAWFDEAKFGVFIHWGVFSVPAWGSE
 WFWWWHQEGRPQYQRFMRDNYPPGFSYADFGPQFTARFFHPEEWADLFQAAGAKYVVLTKKHHEGFTNW
 PSPVSWNWNKSDVGPDRDLVDELGTALRKRNIYGLYHSLLEWFHPLYLLDKKNGFKTQHFVSAKTMPLE
 YDLVNSYKPDLIWSDGEWECPTDYWNSTNFLSWLYNDSPVKDEVVNDRWGQNCSSCHHGYYNCEDKFKP
 QSLPDHKWEMCTSIDKFSWGYRRDMALSDVTEESEIISELVQTVSLGGNYLLNIGPTKDGLIVPIFQERL
 LAVGKWSINGEAIYASKPWRVQWEKNTTSVWYTSKGSVYAIIFLHWPENGVNLNLESPITSTTKITMLG
 IQGDLKWSTRDPDKGLFISLPQLPPSAVPAEFAWTIKLTGVK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_000147

ORF Size: 1383 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_000147.3](#), [NP_000138.2](#)

RefSeq Size: 2095 bp

RefSeq ORF: 1401 bp

Locus ID: 2517

UniProt ID: [P04066](#)

Cytogenetics: 1p36.11

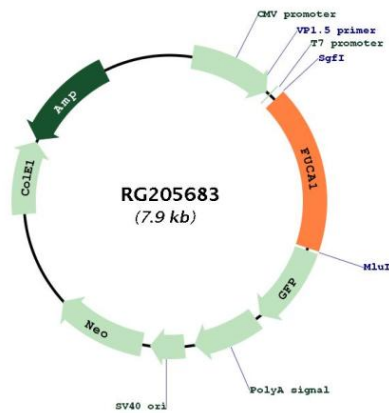
Domains: Alpha_L_fucos

Protein Families: Druggable Genome

Protein Pathways: Lysosome, Other glycan degradation

Gene Summary: The protein encoded by this gene is a lysosomal enzyme involved in the degradation of fucose-containing glycoproteins and glycolipids. Mutations in this gene are associated with fucosidosis (FUCA1D), which is an autosomal recessive lysosomal storage disease. A pseudogene of this locus is present on chr 2.[provided by RefSeq, Oct 2009]

Product images:



Circular map for RG205683