

## Product datasheet for **RC209505**

### POFUT2 (NM\_133635) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	POFUT2 (NM_133635) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	POFUT2
Synonyms:	C21orf80; FUT13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC209505 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGACTCAGTTCGTTCTCTGCTGCTGGGGCAGTGTCTGGCCTCCGGCTTCTGCTCCGGCC  
 AGGAGTTCGGCCGGACAATCGGCGGCCGATATTCTGTGGGGGCGGCTTCCCGCAGACGGTATCTTCT  
 GTATGACGTCAACCCCCGGAAGGCTTCAACTGCGCAGGGATGTCTATATCCGAATCGCCTCTCTCCTG  
 AAGACTCTGCTGAAGACGGAGGAGTGGGTGCTTGTCTGCTCCATGGGGCCGCTCTATCACTGGCAGA  
 GTCCTGACATCCACAGGTCCGGATTCCCTGGTCTGAGTTTTTTGATCTTCCAAGTCTCAATAAAAAACAT  
 CCCCCTCATCGAGTATGAGCAGTTCATCGCAGAATCTGGTGGGCCCTTTATTGACCAGGTTTACGTCCTG  
 CAAAGTTACGCAGAGGGGTGAAAGAAGGGACCTGGGAAGAGAAGGTGGACGAGCGGCCGTGATTGATC  
 AGCTCCTGTACTCCAGGACAAGCACGAGTACTACAGAGGATGGTTTTGGGGTTATGAGGAGACCAGGGG  
 TCTAAACGTCTCCTGTCTGTCCGTCCAGGGCTCAGCCTCCATCGTGGCGCCCTGCTGCTGAGAAACACA  
 TCAGCCCGGTCCGTGATGTTAGACAGAGCCGAGAACCTACTTACGACCACTATGGAGGGAAAGAATACT  
 GGGATACCCGTCGCAGCATGGTGTGGCCAGGCACCTGCGGGAGGTGGGAGACGAGTTCAGGAGCAGACA  
 TCTCAACTCCACGGACGACGACAGGATCCCTTCCAGGAGGACTGGATGAAGATGAAGGTCAAGCTG  
 GGCTCCGCGCTAGGGGGCCCTACCTGGGAGTCCACCTGAGAAGAAAAGATTTTCTGTTGGGGTACAGAC  
 AGGATGTACCCAGTCTGGAAGGGGCCGTGAGGAAGATCCGCAGCCTCATGAAGACCCACCGGCTGGCAA  
 GGTGTTTGTGGCCACAGATGCCGTGAGAAAGGAATATGAAGAGCTAAAAAGCTGTTACCCGAGATGGTG  
 AGGTTTGAACCCACGTGGGAGGAGCTGGAGCTCTACAAGGACGGAGGCGTTGCGATTATTGACCAGTGA  
 TCTGCGCACACGCCAGGTTTTTTATTGGCACCTCAGTCTCAACATTTTCTTTTCGGATTTCATGAGGAAAG  
 AGAAATCCTGGGGTTGGACCCCAAGACGACGTACAACAGGTTCTGCGGAGACCAAGAGAAGGCGGTGTGAG  
 CAACCCACCCACTGGAAGATCACCTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209505 protein sequence  
 Red=Cloning site Green=Tags(s)

MATLSFVFLLLGAVSWPPASASGQEFWPGQSAADILSGAASRRRYLLYDVNPPEGFNLRDQVYIRIASLL  
 KTLKTEEWLVLPWGRLYHWQSPDIHQVRIWSEFFDLPSLNKNIPVIEYEQFIAESGGPFIDQYVVL  
 QSYAEGWKEGTWEEKVDERPCIDQLLYSQDKHEYRGWFYGYEETRGLNVSCLSVQGSASIVAPLLLRNT  
 SARSVMLDRAENLLHDHYGGKEYWDRRSMVFARHLREVGDEFRRSRLNSTDDADRIPFQEDWMKMKVKL  
 GSALGGPYLGVHLRRKDFIWGHRQDVPSLEGAVRKIRSLMKTHRLDKVVFATDAVRKEYEELKLLPEMV  
 RFEPTWEELELYKDGVAIIDQWICAHARFFIGTSVSTFSFRIHEEREILGLDPKTTYNRFCDGQEKACE  
 QPTHWKITY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6355\\_e09.zip](https://cdn.origene.com/chromatograms/mk6355_e09.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_133635

**ORF Size:** 1287 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\\_133635.6](#)

**RefSeq Size:** 2878 bp

**RefSeq ORF:** 1290 bp

**Locus ID:** 23275

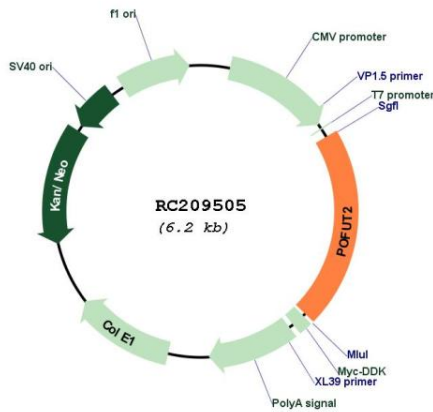
**UniProt ID:** [Q9Y2G5](#)

**Cytogenetics:** 21q22.3

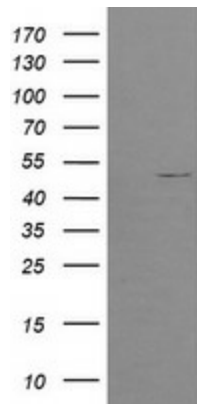
**MW:** 50 kDa

**Gene Summary:** Fucose is typically found as a terminal modification of branched chain glycoconjugates, but it also exists in direct O-linkage to serine or threonine residues within cystine knot motifs in epidermal growth factor (EGF; MIM 131530)-like repeats or thrombospondin (THBS; see MIM 188060) type-1 repeats. POFUT2 is an O-fucosyltransferase that use THBS type-1 repeats as substrates (Luo et al., 2006 [PubMed 16464857]).[supplied by OMIM, Mar 2008]

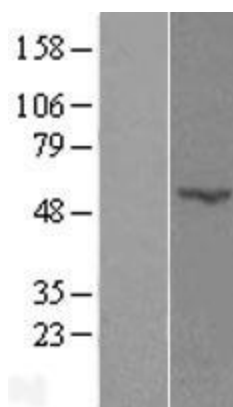
**Product images:**



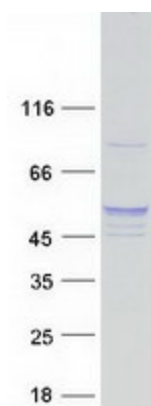
Circular map for RC209505



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY POFUT2 (Cat# RC209505, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-POFUT2(Cat# [TA505004]). Positive lysates [LY408775] (100ug) and [LC408775] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY408775]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209505 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified POFUT2 protein (Cat# [TP309505]). The protein was produced from HEK293T cells transfected with POFUT2 cDNA clone (Cat# RC209505) using MegaTran 2.0 (Cat# [TT210002]).