

## Product datasheet for **RG228489**

### TCF7L2 (NM\_001146274) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TCF7L2 (NM_001146274) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TCF7L2
Synonyms:	TCF-4; TCF4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG228489 representing NM\_001146274  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCGACGTGAACGGCGGTGGAGGGGATGACCTAGGCGCCAACGACGAACTGATTTCTTCAAAGACG  
 AGGGCGAACAGGAGGAGAAGAGCTCCGAAAACCTCTCGGCAGAGAGGGATTTAGCTGATGTCAAATCGTC  
 TCTAGTCAATGAATCAGAAACGAATCAAAACAGCTCCTCCGATTCGAGGCGGAAAGACGGCCTCCGCCCT  
 CGCTCCGAAAGTTTCCGAGACAAATCCCGGAAAGTTTGAAGAAGCGGCCAAGAGGCAAGATGGAGGGC  
 TCTTTAAGGGGCCACCGTATCCCGGCTACCCCTTCATCATGATCCCCGACCTGACGAGCCCTACCTCCC  
 CAACGGATCGCTCTCGCCACCGCCCGAACCTCCATTTTCAGTCCGGCAGCACACATTACTCTGCGTAC  
 AAAACGATTGAACACCAGATTGCAGTTCAGTATCTCCAGATGAAATGGCCACTGCTTGATGTCCAGGCAG  
 GGAGCCTCCAGAGTAGACAAGCCCTCAAGGATGCCCGTCCCATCACCGGCACACATTGTCTCTAACAA  
 AGTGCCAGTGGTGCAGCACCCCTACCATGTCCACCCCTCAGCCCTTTATCACGTACAGCAATGAACAC  
 TTCAGCCGGGAAACCCACCTCCACACTTACCAGCCGACGTAGACCCCAAACAGGAATCCACGGCCTC  
 CGCACCTCCAGATATATCCCCGTATTACCCACTATCGCCTGGCACCGTAGGACAATCCCCATCCGCT  
 AGGATGGTTAGTACCACAGCAAGGTCAACCAGTGTACCCAATCACGACAGGAGGATTCAGACACCCCTAC  
 CCCACAGCTCTGACCGTCAATGCTTCCATGTCCAGGTTCCCTCCCATATGGTCCCACCACATCATACGC  
 TACACACGACGGGCATCCGCATCCGGCCATAGTCACACCAACAGTCAAACAGGAATCGTCCCAGAGTGA  
 TGTCCGCTCACTCCATAGTTCAAAGCATCAGGACTCCAAAAGGAAGAAGAAAAGAAGAGCCACATA  
 AAGAAACCTCTTAATGCATTCATGTTGTATGAAGGAAATGAGAGCAAAGGTCGTAGCTGAGTGCACGT  
 TGAAGAAGCGCGGCCATCAACCAGATCCTTGGCGGAGGTGGCATGCACGTCCAGAGAAAGAGCAAGC  
 GAAATACTACGAGCTGGCCCGGAAGGAGCGACAGCTTCATATGCAACTGTACCCCGCTGGTCCGCGCGG  
 GATAACTATGAAAGAAGAAGAAGAGGAAAAGGACAAGCAGCCGGGAGAGACCAATGATGCAAATACTC  
 CAAAGAAGTGTCCGGCACTGTTCCGGCTTGACCGACAGACTTTATGGTGCAAACCGTGCAGGAGAAAAAA  
 AAAGTGCCTTCCGCTACATACAAGGTGAAGGAGCTGCCTCAGCCACCCCTCTTCCAGTGAAGCTTACTA  
 GATTCGCCTCCCCCTCCCCGAACCTGCTAGGCTCCCCTCCCCGAGACGCCAAGTACAGACTGAGCAGA  
 CCCAGCCTCTGTCGCTGTCCCTGAAGCCGACCCCTGGCCACCTGTCCATGATGCTCCGCCACCCGC  
 CCTCTGCTCGCTGAGGCCACCCACAAGGCTCCGCCCTGTGCCAACGGGGCCCTGGACTGCCCCCA  
 GCCGCTTTCAGCCTGCCGCCCTCCTCATCAATTGCACAGCCGTCGACTTCTTCTTACATTCCACA  
 GCTCCCTGGCCGGACCCAGCCAGCCGCTGTCGCTCGTACCAAGCTTTAGAA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG228489 representing NM\_001146274  
 Red=Cloning site Green=Tags(s)

MPQLNGGGDDLGANDELI SFKDEGEQEEKSSENSAERDLADV KSSLVNESETNQSSSDSEAERRPPP  
 RSESFDRKSRESLEEAQRQDGLFKGPPYPGYPFIMIPDLTSPYLPNGSLSPTARTLHFQSGSTHYSAY  
 KTIHQIAVQYLQMKWPLL DVQAGLSQSRQALKDARSPSPAHIVSNKVPVQHPHHVHPL TPLITYSNEH  
 FTPGNPPHLPADVDPKGTIPRPHPPDISPYYP LSPGTVGQIPHPLGWLVPQQGQPVYPIITGGFRHPY  
 PTALTVNASMSRFPFHMVPPHHTLHTTGIPHPAIVTPTVKQESSQSDVGS LHSSKHQDSKKEEKKKPHI  
 KKPLNAFMLYMKEMRAKVVAECTLKESAAINQILGRRWHAL SREEQAKYELARKERQLHMQLYPGWSAR  
 DNYGKKKKRKRDKQPGETNDANTPKKCRALFGLDRQTLWCKPCRRKKKCVRYIQEGESCLSPSSDGSLL  
 DSPPPSPNLLGSPPRDAKSQTEQTQPLSLSLKPDLAHL SMMPPPPALLLAEATHKASALCPNGALDLPP  
 AALQPAAPSSSIAQPSTSSLSHSSSLAGTQPQPLSLVTKSLE

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001146274

**ORF Size:** 1806 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

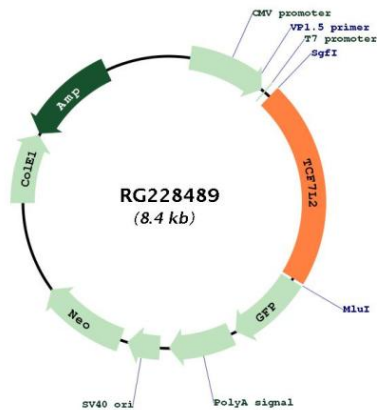
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**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\\_001146274.2](#)  
**RefSeq Size:** 4022 bp  
**RefSeq ORF:** 1809 bp  
**Locus ID:** 6934  
**UniProt ID:** [Q9NQB0](#)  
**Cytogenetics:** 10q25.2-q25.3  
**Protein Families:** Druggable Genome, Transcription Factors  
**Protein Pathways:** Acute myeloid leukemia, Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Basal cell carcinoma, Colorectal cancer, Endometrial cancer, Melanogenesis, Pathways in cancer, Prostate cancer, Thyroid cancer, Wnt signaling pathway  
**Gene Summary:** This gene encodes a high mobility group (HMG) box-containing transcription factor that plays a key role in the Wnt signaling pathway. The protein has been implicated in blood glucose homeostasis. Genetic variants of this gene are associated with increased risk of type 2 diabetes. Several transcript variants encoding multiple different isoforms have been found for this gene.[provided by RefSeq, Oct 2010]

### Product images:



Circular map for RG228489