

Product datasheet for **RG206983**

TNF alpha (TNF) (NM_000594) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TNF alpha (TNF) (NM_000594) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TNF alpha
Synonyms:	DIF; TNF-alpha; TNFA; TNFSF2; TNLG1F
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206983 representing NM_000594 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCACTGAAAGCATGATCCGGGACGTGGAGCTGGCCGAGGAGGCGCTCCCCAAGAAGACAGGGGGC
CCCAGGGCTCCAGGCGGTGCTTGTTCCTCAGCCTCTTCTCCTTCTGATCGTGCCAGGCGCCACCACGCT
CTTCTGCCTGCTGCACTTTGGAGTGATCGGCCCCAGAGGGAAGAGTTCCCCAGGGACCTCTCTAATC
AGCCCTCTGGCCAGGCAGTCAGATCATCTTCTCGAACCCGAGTGACAAGCCTGTAGCCCATGTTGTAG
CAAACCTCAAGCTGAGGGCAGCTCCAGTGGCTGAACCGCCGGCCAATGCCCTCTGGCCAATGGCGT
GGAGCTGAGAGATAACCAGCTGGTGGTGCATCAGAGGGCCTGTACCTCATCTACTCCCAGTCTCTTCC
AAGGGCCAAGGCTGCCCTCCACCCATGTGCTCCTCACCCACACCATCAGCCGCATCGCCGTCTCTTACC
AGACCAAGGTCAACCTCCTCTCTGCCATCAAGAGCCCCTGCCAGAGGGAGACCCAGAGGGGGCTGAGGC
CAAGCCCTGGTATGAGCCCATCTATCTGGGAGGGGTCTTCCAGCTGGAGAAGGGTGACCGACTCAGCGCT
GAGATCAATCGGCCGACTATCTCGACTTTGCCGAGTCTGGGCAGGTCTACTTTGGGATCATTGCCCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206983 representing NM_000594
 Red=Cloning site Green=Tags(s)

MSTESMIRDVELAEEALPKKTGGPQGSRRCLFLSLFSFLIVAGATTLFLLHFGVIGPQREEFPRDLSLI
 SPLAQAVRSSSRTPSDKPVAVHVNPAEQQLWLNRRANALLANGVELRDNQLVVPSEGLYLIYSQVLF
 KGQGCPSHVLVLLTHTISRIVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEPYIYLLGGVFQLEKGDRLSA
 EINRPDYLDFAESGQVYFGIIAL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000594

ORF Size: 699 bp

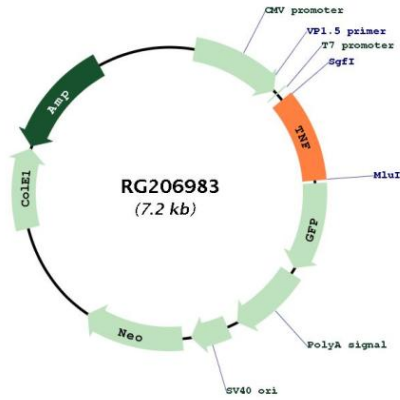
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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:	<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.
RefSeq:	NM_000594.4
RefSeq Size:	1669 bp
RefSeq ORF:	702 bp
Locus ID:	7124
UniProt ID:	P01375
Cytogenetics:	6p21.33
Protein Families:	Druggable Genome, Secreted Protein, Transcription Factors, Transmembrane
Protein Pathways:	Adipocytokine signaling pathway, Allograft rejection, Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Asthma, Cytokine-cytokine receptor interaction, Dilated cardiomyopathy, Fc epsilon RI signaling pathway, Graft-versus-host disease, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway, Natural killer cell mediated cytotoxicity, NOD-like receptor signaling pathway, RIG-I-like receptor signaling pathway, Systemic lupus erythematosus, T cell receptor signaling pathway, TGF-beta signaling pathway, Toll-like receptor signaling pathway, Type I diabetes mellitus, Type II diabetes mellitus
Gene Summary:	This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, psoriasis, rheumatoid arthritis ankylosing spondylitis, tuberculosis, autosomal dominant polycystic kidney disease, and cancer. Mutations in this gene affect susceptibility to cerebral malaria, septic shock, and Alzheimer disease. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RG206983