Product datasheet for **RC206983**

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

**Product data:**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Expression Plasmids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>TNF alpha (TNF) (NM_000594) Human Tagged ORF Clone</td>
</tr>
<tr>
<td>Tag</td>
<td>Myc-DDK</td>
</tr>
<tr>
<td>Symbol</td>
<td>TNF</td>
</tr>
<tr>
<td>Synonyms</td>
<td>DIF; TNF-alpha; TNFA; TNFSF2; TNLG1F</td>
</tr>
<tr>
<td>Vector</td>
<td>pCMV6-Entry (PS100001)</td>
</tr>
<tr>
<td>E. coli Selection</td>
<td>Kanamycin (25 μg/mL)</td>
</tr>
<tr>
<td>Cell Selection</td>
<td>Neomycin</td>
</tr>
<tr>
<td>ORF Nucleotide</td>
<td>&gt;RC206983 ORF sequence</td>
</tr>
</tbody>
</table>
| Sequence:          | Red=Cloning site Blue=ORF Green=Tags(s) 

```plaintext
TTTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC
GCCGCCGATCCGCC

ATGAGCAGCTGAAAACCTGATCCGCCGAGCTGAGCTGCCGGAGGGCTCCCAGAGAGACAGGAGGGGC
CCAGGGGCTCCAGCCAGCCGCTCTCCGAGCGCCGCCAGAGAGACAGGAGGGGC

TTTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC
GCCGCCGATCCGCC

ACGCCGTACGGCGCCCTTGAGACAAATCTCTACATGCAAGAGGATCTGGGACGAAATGATATCCTGGATT
ACAAGGATGACGAGTAAAGTTTAA
```

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This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
Protein Sequence: >RC206983 protein sequence
Red=Cloning site  Green=Tags(s)

MSTESMIRDVELAEALPKTGPGSRRLFLSLFSFLIVAGATTLCFLHFGVIGPQREEFPRLSLI
SPLAQAVSR5RSDKPVAVHVNPNPGFAQLQWLRNRRANALLANGVELRDNLQVLPSEGGLYLYSQQVLF
KGGQCPSTHWLLHTISRIAVSYGTKNLSAIIKSPCQRETPEGAEAKPYYEPYLYLGGVFQLEKGDRLSA
EINRDPYLDFAESQYVYFGI

Chromatograms: https://cdn.origene.com/chromatograms/mk6267_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Plasmid Map:

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.

RefSeq: NM_000594.1, NM_000594.2, NM_000594.3, NP_000585.2
RefSeq Size: 1686 bp
RefSeq ORF: 702 bp
Locus ID: 7124
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
MW: 25.6 kDa

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/TNFBR. 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, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Jul 2008]
Western blot validation of overexpression lysate (Cat# [LY424626]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206983 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified TNF protein (Cat# [TP306983]). The protein was produced from HEK293T cells transfected with TNF cDNA clone (Cat# RC206983) using MegaTran 2.0 (Cat# [TT210002]).