

Product datasheet for **RC202078**

IL6 (NM_000600) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IL6 (NM_000600) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL6
Synonyms:	BSF-2; BSF2; CDF; HGF; HSF; IFN-beta-2; IFNB2; IL-6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202078 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACCTCTTCCACAAGCGCCTTCGGTCCAGTTGCCTTCTCCCTGGGGCTGCTCCTGGTGTTGCCTG
CTGCCTTCCCTGCCCCAGTACCCCGAGGAGAAGATTCCAAAGATGTAGCCGCCCCACACAGACAGCCACT
CACCTTTCAGAACGAATTGACAAACAAATTCGGTACATCCTCGACGGCATCTCAGCCCTGAGAAAGGAG
ACATGTAACAAGAGTAACATGTGTGAAAGCAGCAAAGAGGCACTGGCAGAAAACAACCTGAACCTCCAA
AGATGGCTGAAAAGATGGATGCTTCCAATCTGGATTCAATGAGGAGACTTGCCTGGTAAAATCATCAC
TGGTCTTTTGGAGTTTGAGGTATACCTAGAGTACCTCCAGAACAGATTTGAGAGTAGTGAGGAACAAGCC
AGAGCTGTGCAGATGAGTACAAAAGTCCTGATCCAGTTCCTGCAGAAAAAGGCAAAGAATCTAGATGCAA
TAACCACCCTGACCCAACCACAAATGCCAGCCTGCTGACGAAGCTGCAGGCACAGAACCAGTGGCTGCA
GGACATGACAACCTCATCTCATTCTGCGCAGCTTAAGGAGTTCCTGCAGTCCAGCCTGAGGGCTCTTCGG
CAAATG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202078 protein sequence
Red=Cloning site Green=Tags(s)

MNSFSTSAFGPVAFSLGLLLVLPAAFPAPVPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKE
 TCNKSNMCESSKEALAENNLNLPKMAEKDGCQSGFNEETCLVKIITGLLEFEVYLEYLQNRFSSEEQA
 RAVQMSTKVLIQFLQKKAKNLDAITTPDPTTNASLLTKLQAQNQLQDMTTHLILRSFKEFLQSSLRALR
 QM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6012_c11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000600

ORF Size: 636 bp

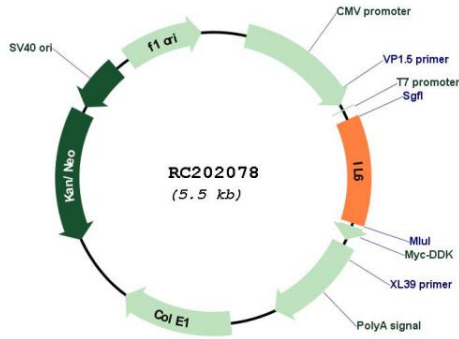
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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](#)

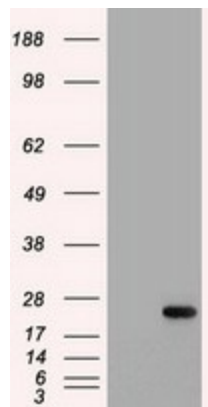
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000600.5
RefSeq Size:	1201 bp
RefSeq ORF:	639 bp
Locus ID:	3569
UniProt ID:	P05231
Cytogenetics:	7p15.3
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Cytokine-cytokine receptor interaction, Cytosolic DNA-sensing pathway, Graft-versus-host disease, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), Jak-STAT signaling pathway, NOD-like receptor signaling pathway, Pathways in cancer, Prion diseases, Toll-like receptor signaling pathway
MW:	23.7 kDa
Gene Summary:	This gene encodes a cytokine that functions in inflammation and the maturation of B cells. In addition, the encoded protein has been shown to be an endogenous pyrogen capable of inducing fever in people with autoimmune diseases or infections. The protein is primarily produced at sites of acute and chronic inflammation, where it is secreted into the serum and induces a transcriptional inflammatory response through interleukin 6 receptor, alpha. The functioning of this gene is implicated in a wide variety of inflammation-associated disease states, including susceptibility to diabetes mellitus and systemic juvenile rheumatoid arthritis. Elevated levels of the encoded protein have been found in virus infections, including COVID-19 (disease caused by SARS-CoV-2). [provided by RefSeq, Aug 2020]

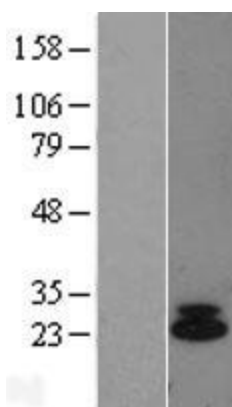
Product images:



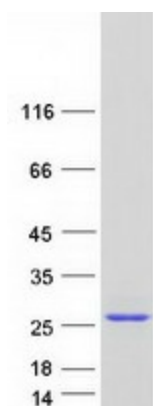
Circular map for RC202078



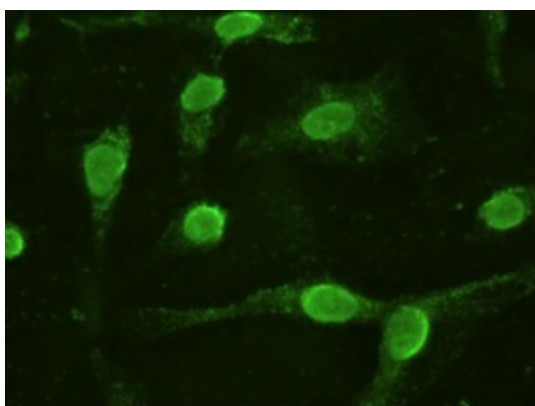
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IL-6 (Cat# RC202078, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IL-6 (Cat# [TA500067]). Positive lysates [LY424617] (100ug) and [LC424617] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424617]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202078 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IL6 protein (Cat# [TP302078]). The protein was produced from HEK293T cells transfected with IL6 cDNA clone (Cat# RC202078) using MegaTran 2.0 (Cat# [TT210002]).



Anti-IL-6 mouse monoclonal antibody ([TA500067]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY IL-6 (RC202078).