

Product datasheet for **RG228006**

IL12A (NM_000882) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IL12A (NM_000882) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IL12A
Synonyms:	CLMF; IL-12A; NFSK; NKSF1; P35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG228006 representing NM_000882 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGCCCCCTGGGTCAGCCTCCAGCCACGCCCTCACCTGCCGCGGCCACAGGTCTGCATCCAGCGG
CTCGCCCTGTGTCCCTGCAGTGCCGGCTCAGCATGTGTCCAGCGCGCAGCCTCCTCCTTGTGGCTACCT
GGTCTCCTGGACCACCTCAGTTTGGCCAGAACTCCCGTGGCCACTCCAGACCCAGGAATGTTCCCA
TGCCTTCACCACTCCCAAACTGCTGAGGGCCGTCAGCAACATGCTCCAGAAGGCCAGACAACTCTAG
AATTTTACCTTGCACTTCTGAAGAGATTGATCATGAAGATATCAGAAAGATAAAACCAGCACAGTGGA
GGCCTGTTTACCATTGGAATTAACCAAGAATGAGAGTTGCCTAAATTCAGAGAGACCTCTTCATAACT
AATGGGAGTTGCCTGGCCTCCAGAAAGACCTCTTTTATGATGGCCTGTGCCTTAGTAGTATTTATGAAG
ACTTGAAGATGTACCAGGTGGAGTTCAAGACCATGAATGCAAAGCTTCTGATGGATCCTAAGAGGCAGAT
CTTTCTAGATCAAAACATGCTGGCAGTTATTGATGAGCTGATGCAGGCCCTGAATTTCAACAGTGAGACT
GTGCCACAAAATCCTCCCTGAAGAACCGGATTTTATAAACTAAATCAAGCTCTGCATACTTCTTC
ATGCTTTCAGAATTCGGGCAGTGACTATTGATAGAGTGATGAGCTATCTGAATGCTTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG228006 representing NM_000882
 Red=Cloning site Green=Tags(s)

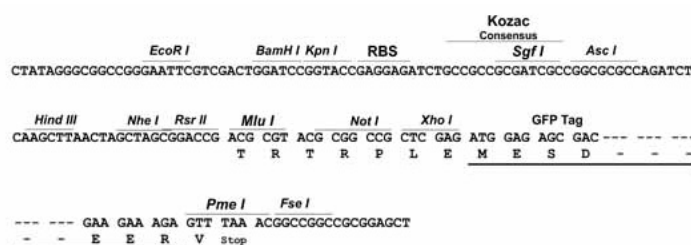
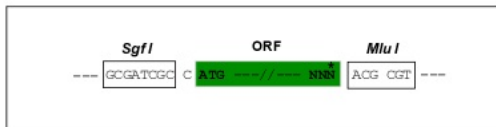
MWPPGSASQPPPSAAATGLHPAARPVSLQCRLSMCPARSLLLVATLVLLDHLSLARNLPVATPDPMF
 CLHHSQNLLRAVSNMLQKARQTLFYPCTSEEDHEDITKDKTSTVEACLPLELTKNESCLNSRETSF
 ITNGSCLASRKTSFMMALCLSSIYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNLMAVIDELMQALN
 FNSETVPQKSSLEEDFYKTKIKLCILLHAFRIRAVTIDRVMSYLNAS

TRTRPLE - GFP Tag - V

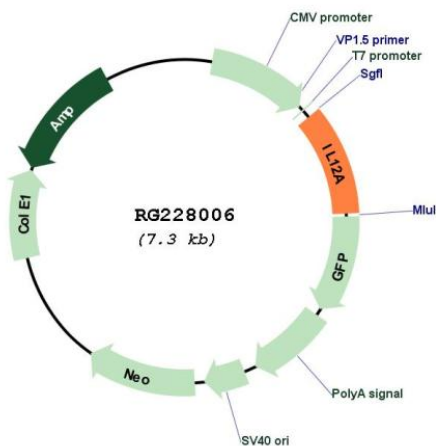
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_000882

ORF Size: 759 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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_000882.4
RefSeq Size:	1444 bp
RefSeq ORF:	762 bp
Locus ID:	3592
UniProt ID:	P29459
Cytogenetics:	3q25.33
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Allograft rejection, Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway, Type I diabetes mellitus

Gene Summary:

This gene encodes a subunit of a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. The cytokine is a disulfide-linked heterodimer composed of the 35-kD subunit encoded by this gene, and a 40-kD subunit that is a member of the cytokine receptor family. This cytokine is required for the T-cell-independent induction of interferon (IFN)-gamma, and is important for the differentiation of both Th1 and Th2 cells. The responses of lymphocytes to this cytokine are mediated by the activator of transcription protein STAT4. Nitric oxide synthase 2A (NOS2A/NOS2) is found to be required for the signaling process of this cytokine in innate immunity. [provided by RefSeq, Jul 2008]