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Product datasheet for RC221972

IL4I1 (NM_172374) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IL4I1 (NM_172374) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IL4I1
Synonyms:	FIG1; hIL4I1; LAAO; LAO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC221972 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCAACGATGACTTCTGTCCTGGGCTAACCATAAAGGCCATGGGTGCTGAGAGAGCCCCCCAGAGGC
AGCCATGCACCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGGAA
GGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTG
GTGACCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGC
TGGTGGCCGCCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGG
GGGCCGCATCTTCACCTACCGGGACCAGAACATGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCC
AGCTCTCACAGGATCCTCCACAAGCTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTCACCCAGTACG
ACAAGAACACGTGGACGGAGGTGCACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCGAGAA
GCTGGGCTACGCCTTGCGTCCCCAGGAAAAGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAAC
CAGGCCCTCAAAGACCTCAAGGCACTGGGCTGCAGAAAGGCGATGAAGAAGTTTGAAAGGCACACGCTCT
TGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCGGCCGTGCAGCTTCTGGGAGACGTGATGTCCGA
GGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGGGCCCACAGCTGCCTCAGCGACAGACTCCAG
TACAGCCGCATCGTGGGTGGCTGGGACCTGCTGCCGCGCGCGCTGCTGAGCTCGCTGTCCGGGCTTGTGC
TGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTGCAGATCGAGACCTCTCC
CCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGCTGCTGACGGCGAGCGGACCGGCGGTGAAG
CGCATCACCTTCTCGCCGCCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTACGTGCCGG
CCACCAAGGTGTTCCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCAAA
CACCGATCGCCCGTCGCGCATGATTTTCTACCCGCCGCCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTAC
ACGTGGTCGGACGCGGCGGCAGCGTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACG
ACGTGGCGGCATTGCACGGGCCTGTCGTGCGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGC
GGAGGACCAGCACAGCCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGAC
TGGACGGTCCCTTATGGCCGCATCTACTTTGCCGGCGAGCACACCGCCTACCCGCACGGCTGGGTGGAGA
CGGCGGTCAAGTCGGCGCTGCGCGCCGCCATCAAGATCAACAGCCGGAAGGGGCCTGCATCGGACACGGC
CAGCCCCGAGGGGCACGCATCTGACATGGAGGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCG
CATGACCTGGCAAAGGAAGAAGGCAGCCACCCTCCAGTCCAAGGCCAGTTATCTCTCCAAAACACGACCC
ACACGAGGACCTCGCAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221972 protein sequence
Red=Cloning site Green=Tags(s)

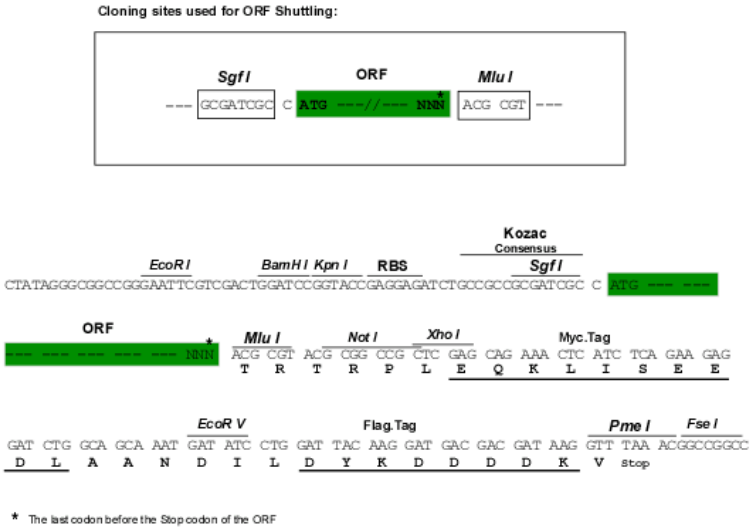
MPNDDFCPGLTIKAMGAERAPQRQPCTLHLLVLVPILLSLVASQDWKAERSQDPFEKCMQDPDYEQLLKV
VTWGLNRTLKPQRVIVVGAGVAGLVAAKVLSDAGHKVTILEADNRIGGRIFTYRDQNMGWIGELGAMRMP
SSHRILHKLCQGLGLNLTKFTQYDKNTWTEVHEVKLRNYVVEKVPEKLGYALRPQEKGHSPEDIYQMALN
QALKDLKALGCRKAMKKFERHTLLEYLLGEGNLSRPAVQLLGDVMSEDGFFYLSFAEALRAHSCLSDRLQ
YSRIVGGWDLLPRALLSSLSGLVLLNAPVVAMTQGPHDVHVQIETSPPARNLKVLKADVVLLTASGPAVK
RITFSPPLPRHMQEALRRLHYVPATKVFLSFRRPFWREEHIEGGHSNTDRPSRMIFYPPPREGALLLASY
TWSDAAAAFAGLSREEALRLALDDVAALHGPVVRQLWDGTGVVKRWAEDQHSQGGFVVQPPALWQTEKDD
WTVPYGRIYFAGEHTAYPHGWVETAVKSALRAAIKINSRKGPASDTASPEGHASDMEGQGHVHGVASSPS
HDLAKEEGSHPPVQGQLSLQNTTHTRTSH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6558_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_172374

ORF Size: 1767 bp

OTI Disclaimer: 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

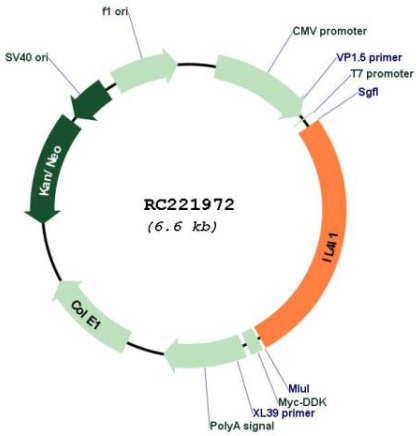
RefSeq: NM_172374.3

RefSeq Size: 2359 bp

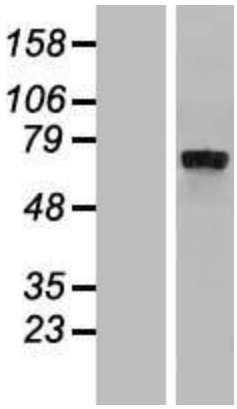
RefSeq ORF: 1770 bp

Locus ID:	259307
UniProt ID:	Q96RQ9
Cytogenetics:	19q13.33
Protein Families:	Druggable Genome
Protein Pathways:	Alanine, aspartate and glutamate metabolism, Cysteine and methionine metabolism, Metabolic pathways, Phenylalanine, tyrosine and tryptophan biosynthesis, Phenylalanine metabolism, Tryptophan metabolism, Tyrosine metabolism, Valine, leucine and isoleucine degradation
MW:	65.4 kDa
Gene Summary:	This gene encodes a secreted L-amino acid oxidase protein which primarily catabolizes L-phenylalanine and, to a lesser extent, L-arginine. The expression of this gene is induced by the cytokine interleukin 4 in B cells. This gene is also expressed in macrophages and dendritic cells. This protein may play a role immune system escape as it is expressed in tumor-associated macrophages and suppresses T-cell responses. This protein also contains domains thought to be involved in the binding of flavin adenine dinucleotide (FAD) cofactor. Multiple transcript variants encoding different isoforms have been found for this gene. Some transcripts of this gene share a promoter and exons of the 5' UTR with the overlapping NUP62 gene. [provided by RefSeq, Jul 2020]

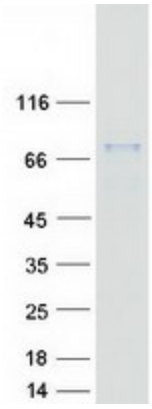
Product images:



Circular map for RC221972



Western blot validation of overexpression lysate (Cat# [LY406700]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221972 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IL4I1 protein (Cat# [TP321972]). The protein was produced from HEK293T cells transfected with IL4I1 cDNA clone (Cat# RC221972) using MegaTran 2.0 (Cat# [TT210002]).