

Product datasheet for RC206592

IDO1 (NM_002164) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDO1 (NM_002164) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IDO1
Synonyms:	IDO; IDO-1; INDO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206592 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACACGCTATGGAAAACCTGGACAATCAGTAAAGAGTACCATATTGATGAAGAAGTGGCCTTTG
CTCTGCCAAATCCACAGGAAAATCTACCTGATTTTTATAATGACTGGATGTTTCATTGCTAAACATCTGCC
TGATCTCATAGAGTCTGGCCAGCTTCGAGAAAGAGTTGAGAAGTTAAACATGCTCAGCATTGATCATCTC
ACAGACCACAAGTCACAGCGCCTTGACGCTCTAGTTCTGGGATGCATCACCATGGCATATGTGTGGGCA
AAGGTCATGGAGATGTCCGTAAGGCTTGGCCAAGAAATATTGCTGTTCCCTACTGCCAATCTCCAAGAA
ACTGGAAGTGCCTCTATTTTGGTTTATGCAGACTGTGTCTTGGCAAACCTGGAAGAAAAAGGATCCTAAT
AAGCCCCGACTTATGAGAACATGGACGTTTTTGTCTCATTTCGTGATGGAGACTGCAGTAAAGGATTCT
TCTGTGCTCTCTATTGGTGGAAATAGCAGCTGCTTCTGCAATCAAAGTAATTCCTACTGTATTCAAGGC
AATGCAAATGCAAGAACGGGACACTTTGCTAAAGGCGCTGTTGGAAATAGCTTCTTGCTTGGAGAAAGCC
CTTCAAGTGTTCACCAAATCCACGATCATGTGAACCCAAAGCATTTTTTCAGTGTCTTCGCATATATT
TGTCTGGCTGAAAGGCAACCCAGCTATCAGACGGTCTGGTGTATGAAGGTTCTGGGAAAGCCCAA
GGAGTTTGAGGGGCGAGTGCAGGCCAAAGCAGCGTCTTTCAGTGTCTTTCAGTCTCTGCTGGCATCCAG
CAGACTGCTGGTGGAGGACATGCTGCTCAGTTCCTCCAGGACATGAGAAGATATATGCCACCAGCTCACA
GGAACCTCCTGTGCTCATTAGAGTCAAATCCCTCAGTCCGTGAGTTTGTCTTTCAAAGGTGATGCTGG
CCTGCGGGAAGCTTATGACGCCTGTGTAAAGCTCTGGTCTCCCTGAGGAGCTACCATCTGCAAATCGTG
ACTAAGTACATCCTGATTCTGCAAGCCAGCAGCCAAAGGAGAATAAGACCTCTGAAGACCTTCAAAC
TGGAAAGCCAAAGGAACTGGAGGCACTGATTTAATGAATTCCTGAAGACTGTAAGAAGTACAACCTGAGAA
ATCCCTTTGAAGGAAGGT

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC206592 protein sequence
Red=Cloning site Green=Tags(s)

MAHAMENSWTISKEYHIDEEVGFALPNPQENLPDFYNDWMFIAKHL PDLIESGQLRERVEKLNMLSIDHL
 TDHKSQRLARLVLCITMAYVWGKGHGDVRKVLPRNIAVPYQQLSKKLELPPILVYADCVLANWKKKDPN
 KPLTYENMDVLF SFRDGDCKSGFFLVSLLEIAAASAIKVIPTVFKAMQMQRD TLLKALLEIASCLEKA
 LQVFHQIHDHVNPKAFFSVLR IYLSGWKGNPQLSDGLVYEGFWEDPK EFAGGSAGQSSVFQCFDVL LGIQ
 QTAGGGHAAQFLQDMRRYMPPAHRNFLCSLESNPSVREFVLSKGDAGLREAYDACVKALVSLRSYHLQIV
 TKYILIPASQQPKENKTS EDPKLEAKGTGGTDL MNFLKTVRSTTEKSL LKEG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6197_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002164

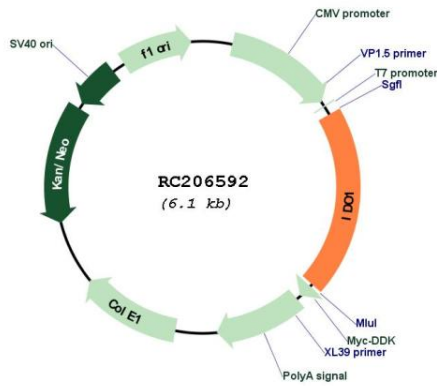
ORF Size: 1209 bp

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.

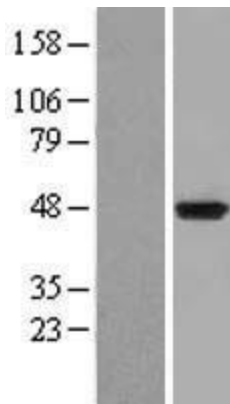
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_002164.6
RefSeq Size:	1944 bp
RefSeq ORF:	1212 bp
Locus ID:	3620
UniProt ID:	P14902
Cytogenetics:	8p11.21
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Tryptophan metabolism
MW:	45.3 kDa
Gene Summary:	This gene encodes indoleamine 2,3-dioxygenase (IDO) - a heme enzyme that catalyzes the first and rate-limiting step in tryptophan catabolism to N-formyl-kynurenine. This enzyme acts on multiple tryptophan substrates including D-tryptophan, L-tryptophan, 5-hydroxy-tryptophan, tryptamine, and serotonin. This enzyme is thought to play a role in a variety of pathophysiological processes such as antimicrobial and antitumor defense, neuropathology, immunoregulation, and antioxidant activity. Through its expression in dendritic cells, monocytes, and macrophages this enzyme modulates T-cell behavior by its peri-cellular catabolization of the essential amino acid tryptophan.[provided by RefSeq, Feb 2011]

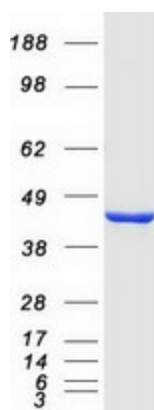
Product images:



Circular map for RC206592



Western blot validation of overexpression lysate (Cat# [LY400784]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206592 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IDO1 protein (Cat# [TP306592]). The protein was produced from HEK293T cells transfected with IDO1 cDNA clone (Cat# RC206592) using MegaTran 2.0 (Cat# [TT210002]).