

Product datasheet for **RC206768**

D Amino Acid Oxidase (DAO) (NM_001917) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	D Amino Acid Oxidase (DAO) (NM_001917) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	D Amino Acid Oxidase
Synonyms:	DAAO; DAMOX; OXDA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206768 representing NM_001917 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGCGTGTGGTGGTATTGGAGCAGGAGTCATCGGGCTGTCCACCGCCCTCTGCATCCATGAGCGCTACC
ACTCAGTCCTGCAGCCACTGGACATAAAGGTCTACGCGGACCGCTTCACCCCACTCACCACCACCGACGT
GGCTGCCGGCCTCTGGCAGCCCTACCTTTCTGACCCCAACAACCCACAGGAGGCGGACTGGAGCCAAACAG
ACCTTTGACTATCTCCTGAGCCATGTCCATTCTCCCAACGCTGAAAACCTGGGCCTGTTCTAATCTCGG
GCTACAACCTCTCCATGAAGCCATTCCGACCCCTTCTGGAAGGACACAGTTCTGGGATTCGGAAGCT
GACCCCAAGAGAGCTGGATATGTTCCAGATTACGGCTATGGCTGGTCCACACAAGCCTAATCTGGAG
GGAAAGAATACTACTACAGTGGCTGACTGAAAGGTTAACTGAGAGGGGAGTGAAGTTCTTCCAGCGGAAAG
TGGAGTCTTTGAGGAGGTGGCAAGAGAAGGCGCAGACGTGATTGTCAACTGCACTGGGGTATGGCTGG
GGCGCTACAACGAGACCCCTGCTGCAGCCAGGCGGGGGCAGATCATGAAGGTGGACGCCCTTGGATG
AAGCACTTCACTCACCATGACCCAGAGAGGAGCATCTACAATTCCCGTACATCATCCAGGGACCC
AGACAGTTACTCTGGAGGCATCTTCCAGTTGGGAACTGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
CACCATTTGGGAAGGCTGCTGCAGACTGGAGCCACACTGAAGAATGAAGAATATTGGTGAACGAAGT
GGCTCCGGCCAGTACGCCCCAGATTCCGGCTAGAAAGAGAACAGCTTCGCACTGGACCTCAAACACAG
AGGTATCCACAATACTATGGCCATGGAGGCTACGGGCTCACCATCCACTGGGGATGTGCCCTGGAGGCAGC
CAAGCTCTTTGGGAGAATCTGGAAGAAAAGAAATTGTCCAGAATGCCACCATCCACCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206768 representing NM_001917
Red=Cloning site Green=Tags(s)

MRVVVIGAGVIGLSTALCIHERYHSVLQPLDIKYYADRFPLTTTDDVAAGLWQPYLSDPNNPQEADWSQQ
 TFDYLLSHVHSPNAENLGLFLISGYNFLHEAIPDPSWKDVTLVGFRKLTPRELDMFPDYGYGWFHTSLILE
 GKNYLQWLTERLTERGVKFFQRKVESFEEVAREGADVIVNCTGVWAGALQRDPLLPQGRGQIMKVDAPWM
 KHFILTHDPERGIYNSPYIIPGTQVTTLGGIFQLGNWSELNNIQDHNTIWECCRLEPTLKNARIIGERT
 GFRPVRPQIRLEREQRLRTGPSNTEVIHNYGHGGYGLTIHWGCALEAAKLFGRILEEKLSRMPPSHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1563_e06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001917

ORF Size: 1041 bp

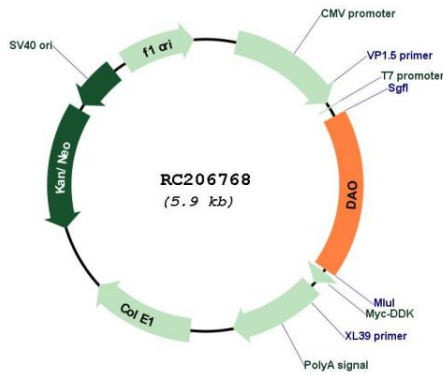
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

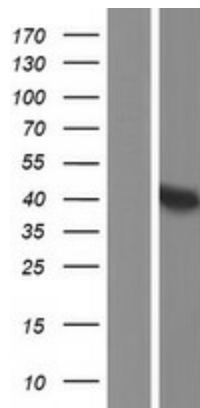
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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_001917.5
RefSeq Size:	1576 bp
RefSeq ORF:	1044 bp
Locus ID:	1610
UniProt ID:	P14920
Cytogenetics:	12q24.11
Domains:	DAO
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, D-Arginine and D-ornithine metabolism, Glycine, serine and threonine metabolism, Metabolic pathways
MW:	39.3 kDa
Gene Summary:	<p>This gene encodes the peroxisomal enzyme D-amino acid oxidase. The enzyme is a flavoprotein which uses flavin adenine dinucleotide (FAD) as its prosthetic group. Its substrates include a wide variety of D-amino acids, but it is inactive on the naturally occurring L-amino acids. Its biological function is not known; it may act as a detoxifying agent which removes D-amino acids that accumulate during aging. In mice, it degrades D-serine, a co-agonist of the NMDA receptor. This gene may play a role in the pathophysiology of schizophrenia. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RC206768



Western blot validation of overexpression lysate (Cat# [LY419652]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206768 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).