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Product datasheet for RC212769

D aspartate oxidase (DDO) (NM_004032) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	D aspartate oxidase (DDO) (NM_004032) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	D aspartate oxidase
Synonyms:	DASOX; DDO-1; DDO-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC212769 representing NM_004032
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGACCAGCCAGGCACTGGGAAACAAGGTTTGGTGCCAGAGATTTTGGTGGCTTCCAAGACTGCTTTT
TCAGAGACAGGCTCATGGACACAGCACGGATTGCAGTTGTCGGGGCAGGTGTGGTGGGGCTCTCCACGGC
TGTGTGCATCTCCAAACTGGTGCCCCGATGCTCCGTTACCATCATTTCAGACAAGTTTACTCCAGATACC
ACCAGTGATGTGGCAGCCGGAATGCTTATTCCTCACACTTATCCAGATACACCCATTCACACGCAGAAGC
AGTGGTTCAGAGAAACCTTTAATCACCTCTTTGCAATTGCCAATTCTGCAGAAGCTGGAGATGCTGGTGT
TCATTTGGTATCAGGGATAAAGGGAAGTGGAGGCTGGACACTCACTCGGCGAATAGAAGACCTGTGGGAA
CTTCATCCGTCCTTTGACATCGTGGTCAACTGTTCAGGCCTTGGAAGCAGACAGCTTGCAGGAGACTCAA
AGATTTTCCCTGTAAGGGGCCAAGTCCTCCAAGTTCAGGCTCCCTGGGTGGAGCATTTTATCCGAGATGG
CAGTGGGCTGACATATATTTATCCTGGTACATCCCATGTAACCCTAGGTGGAACTAGGCAAAAAGGGGAC
TGGAATCTGTCCCCGGATGCAGAAAATAGCAGAGAGATTCTTTCCCGATGCTGTGTTCTGGAGCCCTCCC
TCCACGGAGCCTGCAACATCAGGGAGAAGGTGGGCTTGAGGCCCTACAGGCCAGGCGTGCGACTGCAGAC
AGAGCTCCTTGCGCGAGATGGACAGAGGCTGCCTGTAGTCCACCACTATGGCCATGGGAGTGGGGGCATC
TCAGTGCACTGGGGCACTGCTCTGGAGGCCGCCAGGCTGGTGAGCGAGTGTGTCCATGCCCTCAGGACCC
CCATTCCCAAGTCAAACCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC212769 representing NM_004032
Red=Cloning site Green=Tags(s)

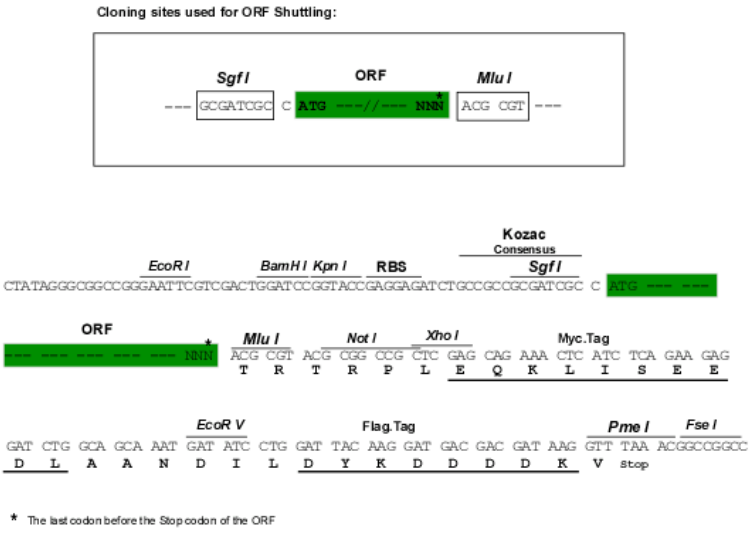
MRPARHWETRFGARDFGGFQDCFFRDRLMDTARIAVVGAGVVGLSTAVCISKLVPRCSVTIISDKFTPDT
TSDVAAGMLIPHTYPDTPIHTQKQWFRETFNHLFAIANSAEAGDAGVHLVSGIKGSGGWTLTRRIEDLWE
LHPSFDIVVNCSGLGSRQLAGDSKIFPVRGQVLQVQAPWVEHFIRDGSGLTYIYPGTSHVTLGGTRQKGD
WNLSPDAENSREILSRCCVLEPSLHGACNIREKVGLRPYRPGVRLQTELLARDGQRLPVVHHYGHGSGGI
SVHWGTALEAARLVSECVHALRTPIPKSNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6475_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004032

ORF Size: 930 bp

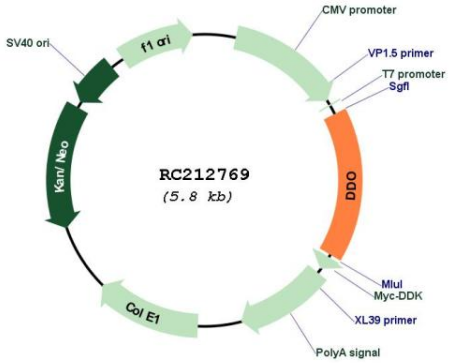
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

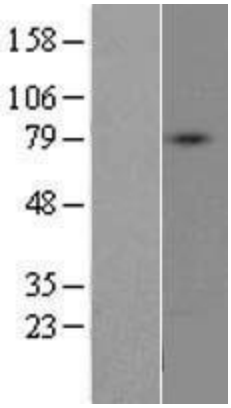
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_004032.2, NP_004023.2
RefSeq Size:	1556 bp
RefSeq ORF:	849 bp
Locus ID:	8528
UniProt ID:	Q99489
Cytogenetics:	6q21
Domains:	DAO
Protein Pathways:	Alanine, aspartate and glutamate metabolism
MW:	33.8 kDa
Gene Summary:	The protein encoded by this gene is a peroxisomal flavoprotein that catalyzes the oxidative deamination of D-aspartate and N-methyl D-aspartate. Flavin adenine dinucleotide or 6-hydroxyflavin adenine dinucleotide can serve as the cofactor in this reaction. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2019]

Product images:



Circular map for RC212769



Western blot validation of overexpression lysate (Cat# [LY418289]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212769 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).