

Product datasheet for **RC210070**

MIOX (NM_017584) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MIOX (NM_017584) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MIOX
Synonyms:	ALDRL6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210070 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGGTGACGGTGGGCCAGACCCCTTCCTGGTCTACCGACCTGATGTGGACCCAGAGGTGGCCAAAG
ACAAGGCCAGCTTCCGGAACACACGTACAGTCCCCTCCTGGACCGTGTCTTACCACCTACAAGCTCAT
GCACACGCACCAGACAGTGGACTTCGTGAGGAGCAAGCATGCCAGTTTGGGGGCTTCTCTACAAGAAA
ATGACAGTCATGGAGGCCGTGGACCTGCTGGATGGCTGGTGGATGAGTCGGACCCGACGTAGATTTCC
CCAACCTCTTCCATGCCTTCCAGACAGCGAGGGCATCCGGAAGGCCACCCAGACAAGGACTGGTTCCA
CCTCGTCGGGCTCCTGCACGACCTGGGGAAGTCTGGCCCTGTTGCGGGAGCCCAAGTGGGCTGTGCTC
GGCGACACCTTCCCGTCCGATGCCGTCCGACGGCTCCGTGGTTTTCTGCGACTCCACCTTCCAGGACA
ACCCTGACCTCCAGGATCCTCGATACAGCACAGAGCTCGGGATGTATCAGCCCCACTGTGGGCTCGACAG
GGTCTCATGTCTGGGGCCATGATGAGTACATGTACCAGGTGATGAAGTTTAAACAAGTTCTCACTGCC
CCTGAGGCTTTCTACATGATCCGGTCCACTCCTTCTACCCCTGGCACACGGGCCGCGACTACCAGCAGC
TGTGCAGCCAGCAGGACCTGGCCATGCTGCCCTGGGTGCGGGAGTTCAACAAGTTCGACCTTACACCAA
GTGCCCGGACCTGCCGACGTGGACAAGCTGCGGCCCTACTACCAGGGGCTCATTGACAAGTACTGCCCT
GGCATCCTGAGCTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210070 protein sequence
Red=Cloning site Green=Tags(s)

MKVTVGPDPSLVYRPDVPDPEVAKDKASFRNYTSGPLLDRVFTTYKLMHHTQTVDFVRSKHAQFGGFSYKK
 MTVMEAVDLLDGLVDESDPDVDFPNSFHAFQTAEGIRKAHPDKDWFHLVGLLHDLGKVLALFGEPQWAVV
 GDTFFVGCGRPQASVVFCDSTFQDNPDLDQPRYSTELGMYQPHCGLDRLMSWGHDEYMYQVMKFNKFSLP
 PEAFYMIREFHSFYPWHTGRDYQQLCSQQDLAMLPWVREFNKF DL YTKCPDLPDVKLRPYYQGLIDKYCP
 GILSW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6363_a02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_017584

ORF Size: 855 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.

RefSeq: [NM_017584.6](#)

RefSeq Size: 1437 bp

RefSeq ORF: 858 bp

Locus ID: 55586

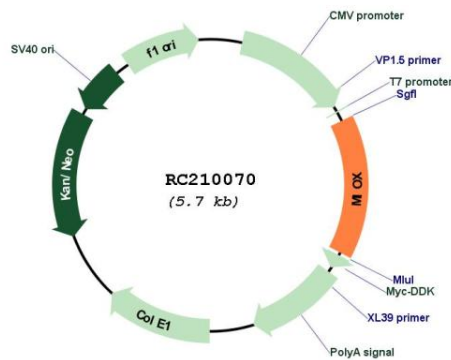
UniProt ID: [Q9UGB7](#)

Cytogenetics: 22q13.33

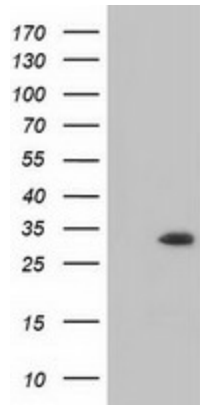
Protein Pathways: Ascorbate and aldarate metabolism, Inositol phosphate metabolism

MW: 33 kDa

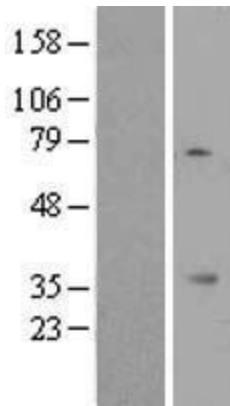
Product images:



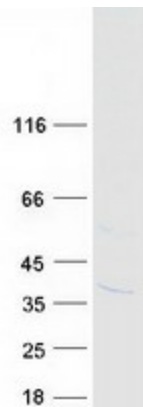
Circular map for RC210070



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MIOX (Cat# RC210070, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MIOX (Cat# [TA501421]). Positive lysates [LY413679] (100ug) and [LC413679] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413679]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210070 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MIOX protein (Cat# [TP310070]). The protein was produced from HEK293T cells transfected with MIOX cDNA clone (Cat# RC210070) using MegaTran 2.0 (Cat# [TT210002]).