

Product datasheet for **RC200108**

IDH3B (NM_006899) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH3B (NM_006899) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IDH3B
Synonyms:	RP46
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200108 representing NM_006899 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCATTGAGCGGAGTCCGCTGGCTGACCCGAGCGCTGGTCTCCGCCGGAACCCTGGGGCATGGA
GAGGTCTGAGTACCTCGGCCGCGCGCACGCTGCATCGCGGAGCCAGGCCGAGGACGTGAGGGTGGAGGG
CTCCTTTCCCGTGACCATGCTTCCGGGAGACGGTGTGGGGCTGAGCTGATGCACGCCGTC AAGGAGGTG
TTCAAGGTGCCGCTGTCCAGTGGAGTCCAGGAGCACCACTGAGTGAGGTGCAGAATATGCCATCTG
AGGAGAAGCTGGAGCAGGTGCTGAGTTCATGAAGGAGAACAAAGTGCCATCATTGGAAAGATTCATAC
CCCGATGGAGTATAAGGGGGAGCTAGCCTCCTATGATATGCGGCTGAGGCGTAAGTTGGACTTATTTGCC
AACGTAGTCCATGTGAAGTCACTTCTGGGTATATGACTCGGCACAACAATCTAGACCTGGTGATCATT
GAGAGCAGACAGAAGGGGAGTACAGCTCTCTGGAACATGAGAGTGCAAGGGGTGTGATTGAGTGTGGAA
GATTGTACACGAGCCAAGTCTCAGCGGATTGCAAAGTTGCCTTTGACTATGCCACCAAGAAGGGGCGG
GGCAAGGTCACTGCTGTCCACAAGGCCAACATCATGAACTTGGGGATGGGTTGTTCTCGCAGTGTGTG
AGGAAGTTGTGAACTGTACCCAAAAATCAAATTTGAGACAATGATCATAGACAAGTGTGCATGCAGCT
GGTGCAGAATCCTTACCAGTTTGTGCTTGTGATGCCCAATCTCTATGGGAACATTATTGACAATCTG
GCTGCTGGCCTGGTTGGGGGAGCTGGTGTGGTCCCTGGTGAGAGCTATAGTGCAGAATACGCAGTCTTTG
AGACGGGTGCCCGCACCCATTTGCCAGGCAGTGGGCAGGAATATAGCCAATCCCACGGCCATGCTGCT
GTCGGCTTCCAACATGCTGCGGCATCTTAATCTTGAGTATCACTCCAGCATGATCGCAGATGCGGTGAAG
AAGGTGATCAAAGTTGGCAAGGTGCGGACTCGAGACATGGCGGCTACAGCACCAACCGACTTCATCA
AGTCTGTCATCGGTCACCTGCAGACTAAAGGGAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200108 representing NM_006899
Red=Cloning site Green=Tags(s)

MAALSGVRWLTRALVSAGNPGAWRGLSTSAAAHAASRSQAEDVRVEGSFPVTMLPGDGVGPELMHAVKEV
 FKAAAVPVEFQEHLSEVQNMASEEKLEQVLSMKENKVAIIGKIHTPMEYKGEASYDMRLRRKLDLFA
 NVVHVKSLPGYMRHNNLDLVIIREQTEGEYSSLEHESARGVIECLKIVTRAKSQRIAKFAFDYATKKGR
 GKVTAVHKANIMKLGDFLQCCEEVAELYPKIKFETMIIDNCCMLVQNPYQFDVLVMPNLYGNIIDNL
 AAGLVGGAGVVPGESYSAYAVFETGARHPFAQAVGRNIANPTAMLLSASNMLRHLNLEYHSSMIADAVK
 KVIKVGKVRTRDMGGYSTTTDFIKSVIGHLQTKGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006899

ORF Size: 1155 bp

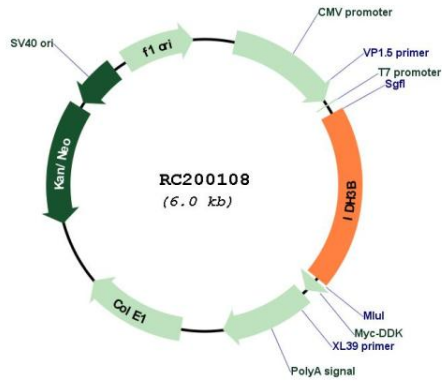
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.
RefSeq:	<u>NM_006899.5</u>
RefSeq Size:	1561 bp
RefSeq ORF:	1158 bp
Locus ID:	3420
UniProt ID:	<u>O43837</u>
Cytogenetics:	20p13
Domains:	isodh
Protein Pathways:	Citrate cycle (TCA cycle), Metabolic pathways
MW:	42.2 kDa
Gene Summary:	Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. NAD(+)-dependent isocitrate dehydrogenases catalyze the allosterically regulated rate-limiting step of the tricarboxylic acid cycle. Each isozyme is a heterotetramer that is composed of two alpha subunits, one beta subunit, and one gamma subunit. The protein encoded by this gene is the beta subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase. Multiple alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Sep 2016]

Product images:



Circular map for RC200108