

## Product datasheet for RC237975

### IDH2 (NM\_001289910) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IDH2 (NM_001289910) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IDH2
Synonyms:	D2HGA2; ICD-M; IDH; IDHM; IDP; IDPM; mNADP-IDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC237975 representing NM_001289910 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATGGTGATGAGATGACCCGTATTATCTGGCAGTTCATCAAGGAGAAGCTCATCCTGCCCCACGTGG  
ACATCCAGCTAAAGTATTTGACCTCGGGCTCCCAAACCGTGACCAGACTGATGACCAGGTCACCATTGA  
CTCTGCACTGGCCACCCAGAAGTACAGTGTGGCTGTCAAGTGTGCCACCATCACCCCTGATGAGGCCGT  
GTGGAAGAGTTCAAGCTGAAGAAGATGTGAAAAGTCCCAATGGAACATCCGGAACATCCTGGGGGGA  
CTGTCTTCGGGAGCCCATCATCTGCAAAAACATCCCACGCTAGTCCCTGGCTGGACCAAGCCCATCAC  
CATTGGCAGGCACGCCCATGGCGACCAAGTACAAGGCCACAGACTTTGTGGCAGACCGGGCCGCACTTTC  
AAAATGGTCTTACCCCAAAAGATGGCAGTGGTGTCAAGGAGTGGGAAGTGTACAACCTCCCCGAGGCG  
GCGTGGGCATGGGCATGTACAACACCGACGAGTCCATCTCAGGTTTTGCGCACAGCTGCTCCAGTATGC  
CATCCAGAAGAAATGGCCGCTGTACATGAGCACCAGAAGACCCATACTGAAAGCCTACGATGGGCGTTTC  
AAGGACATCTCCAGGAGATCTTTGACAAGCACTATAAGACCGACTTCGACAAGAATAAGATCTGGTATG  
AGCACCAGGCTCATTGATGACATGGTGGCTCAGGTCCTCAAGTCTTCGGGTGGCTTTGTGTGGCCTGCAA  
GAACATGACGGAGATGTGCAGTCAGACATCCTGGCCAGGGCTTTGGCTCCCTTGGCCTGATGACGTCC  
GTCCTGGTCTGCCCTGATGGGAAGACGATTGAGGCTGAGGCCGCTCATGGGACCGTCACCCGCCACTATC  
GGGAGCACCAGAAGGGCCGCCCCACCAGCACAACCCCATCGCCAGCATCTTTGCCTGGACACGTGGCCT  
GGAGCACCAGGGGGAAGCTGGATGGGAACCAAGACCTCATCAGGTTTTGCCAGATGCTGGAGAAGGTGTGC  
GTGGAGACGGTGGAGAGTGGAGCCATGACCAAGGACCTGGCGGGCTGCATTACGGCCTCAGCAATGTGA  
AGCTGAACGAGCACTTCTGAACACCACGACTTCTCGACACCATCAAGAGCAACCTGGACAGAGCCCT  
GGCAGGCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC237975 representing NM\_001289910  
Red=Cloning site Green=Tags(s)

MDGDEMTRIIWQFIKEKLILPHVDIQLKYFDLGLPNRDQTDQVTIDSALATQKYSVAVKCATITPDEAR  
VEEFKLLKMWKSPNGTIRNILGGTVFREPIICKNIPRLVPGWTKPITIGRHAHQDYKATDFVADRAGTF  
KMFVTPKDGSGVKEWEVYNFPAGGVGMGMYNDESISGFHSCFYAIQKKWPLYMSTKNTILKAYDGRF  
KDIFQEIFDKHYKTDKDKNIWYEHRLIDDMVAQVLKSSGGFVWACKNYDGDVQSDILAQGFGLMSTS  
VLVCPDGKTIIEAAAHGTVTRHYREHQKGRPTSTNPIASIFAWTRGLEHRGKLDGNQDLIRFAQMLEKVC  
VETVESGAMTKDLAGCIHGLSNVKLNEHFLNTTDFLDTIKSNLDRALGRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3124\\_e02.zip](https://cdn.origene.com/chromatograms/ja3124_e02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001289910

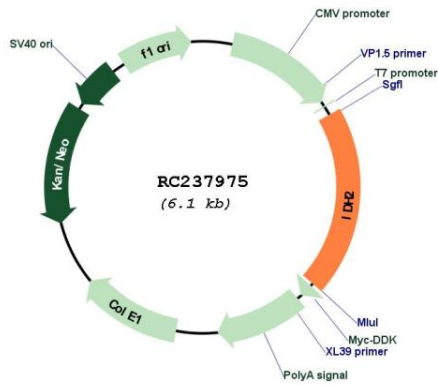
**ORF Size:** 1200 bp

**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](mailto: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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001289910.1</a></u> , <u><a href="#">NP_001276839.1</a></u>
<b>RefSeq Size:</b>	1578 bp
<b>RefSeq ORF:</b>	1203 bp
<b>Locus ID:</b>	3418
<b>UniProt ID:</b>	<u><a href="#">P48735</a></u>
<b>Cytogenetics:</b>	15q26.1
<b>Protein Pathways:</b>	Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways
<b>MW:</b>	45.2 kDa
<b>Gene Summary:</b>	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. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the mitochondria. It plays a role in intermediary metabolism and energy production. This protein may tightly associate or interact with the pyruvate dehydrogenase complex. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

Product images:



Circular map for RC237975