

Product datasheet for **RG237975**

IDH2 (NM_001289910) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH2 (NM_001289910) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IDH2
Synonyms:	D2HGA2; ICD-M; IDH; IDHM; IDP; IDPM; mNADP-IDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237975 representing NM_001289910. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGGCCGGGAATTCGTGCTGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGGATGGTGATGAGATGACCCGTATTATCTGGCAGTTCATCAAGGAGAAGCTCATCCTGCCCCACGTG
GACATCCAGCTAAAGTATTTTGACCTCGGGCTCCCAAACCGTGACCAGACTGATGACCAGGTCACCATT
GACTCTGCACTGGCCACCCAGAAGTACAGTGTGGCTGTCAAGTGTGCCACCATCACCCCTGATGAGGCC
CGTGTGGAAGAGTTCAAGCTGAAGAAGATGTGGAAAAGTCCCAATGGAACATCCGGAACATCCTGGGG
GGGACTGTCTCCGGGAGCCCATCATCTGCAAAAACATCCACGCCTAGTCCCTGGCTGGACCAAGCCC
ATCACCATTGGCAGGCACGCCCATGGCGACCAGTACAAGGCCACAGACTTGTGGCAGACCGGGCCGGC
ACTTTCAAATGGTCTTCACCCAAAAGATGGCAGTGGTGTCAAGGAGTGGGAAGTGTACAACCTCCCC
GCAGGCGGCGTGGGCATGGGCATGTACAACACCGACGAGTCCATCTCAGTTTTGGCCACAGCTGCTTC
CAGTATGCCATCCAGAAGAAATGGCCGCTGTACATGAGCACCAGAAGACCCATACTGAAAGCCTACGAT
GGGCGTTTCAAGGACATCTTCCAGGAGATCTTTGACAAGCACTATAAGACCGACTTCGACAAGAATAAG
ATCTGGTATGAGCACCGGCTCATTGATGACATGGTGGCTCAGGTCCTCAAGTCTTCGGGTGGCTTTGTG
TGGCCTGCAAGAACTATGACGGAGATGTGCAGTCAGACATCCTGGCCAGGGCTTTGGCTCCCTTGGC
CTGATGACGTCCTGCTGGTCTGCCCTGATGGGAAGACGATTGAGGCTGAGGCCGCTCATGGGACCGTC
ACCCGCCACTATCGGGAGCACCAGAAGGGCCGGCCACCAGCACCAACCCATCGCCAGCATCTTTGCC
TGGACAGTGGCCTGGAGCACCGGGGAAGCTGGATGGGAACCAAGACCTCATCAGGTTTGGCCAGATG
CTGGAGAAGGTGTGCGTGGAGACGGTGGAGAGTGGAGCCATGACCAAGGACCTGGCGGGCTGCATTCAC
GGCCTCAGCAATGTGAAGCTGAACGAGCACTTCTGAACACCACGGACTTCTCGACACCATCAAGAGC
AACCTGGACAGAGCCCTGGGCAGGCAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



[View online »](#)

Protein Sequence: >Peptide sequence encoded by RG237975
 Blue=ORF Red=Cloning site Green=Tag(s)

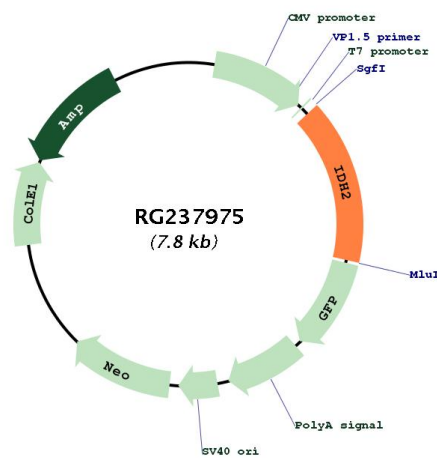
MDGDEMTRIIWQFIKEKLILPHVDIQLKYFDLGLPNRDQTDQVTIDSALATQKYSVAVKCATITPDEA
 RVEEFKLKMMWSPNGTIRNILGGTVFREPIICKNIPRLVPGWTKPITIGRHAHGDQYKATDFVADRAG
 TFKMVFTPKDGSGVKEVEYNFPAGGVGMGYNTDESISGFAHSCFYAIQKKWPLYMSTKNTILKAYD
 GRFKDIFQEIFDKHYKTDFDKNIWYEHRLIDDMVAQVLKSSGGFVWACKNYDGDVQSDILAQQFGSLG
 LMTSVLVCPDGKTEAEAAHGTVTRHYREHQKGRPTSTNPIASIFAWTRGLEHRGKLDGNQDLIRFAQM
 LEKVCVETVESGAMTKDLAGCIHGLSNVKLNEHFLNTDFLDTIKSNLDRALGRQ
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNTAVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001289910
ORF Size:	1200 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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).
RefSeq:	NM_001289910.1 , NP_001276839.1
RefSeq Size:	1578 bp
RefSeq ORF:	1203 bp
Locus ID:	3418
UniProt ID:	P48735
Cytogenetics:	15q26.1
Protein Pathways:	Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways
MW:	45.2 kDa
Gene Summary:	<p>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]</p>