

Product datasheet for **RG201152**

IDH2 (NM_002168) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH2 (NM_002168) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RG201152 representing NM_002168
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCGGCTACCTGCGGGTCGTGCGCTCGCTCTGCAGAGCCTCAGGCTCGCGGCCGGCCTGGGCGCCGG
 CGGCCCTGACAGCCCCACCTCGCAAGAGCAGCCGCGGCCCACTATGCCGACAAAAGGATCAAGGTGGC
 GAAGCCCGTGGTGGAGATGGATGGTGTGAGATGACCCGTATTATCTGGCAGTTCATCAAGGAGAAGCTC
 ATCCTGCCCCACGTGGACATCCAGCTAAAGTATTTTACCTCGGGCTCCCAAACCGTGACCAGACTGATG
 ACCAGGTCAACATTGACTCTGCACTGGCCACCCAGAAGTACAGTGTGGCTGTCAAGTGTCCACCATCAC
 CCCTGATGAGGCCGTGTGAAGAGTTCAGCTGAAGAAGATGTGAAAAGTCCCAATGGAACATCCGG
 AACATCTGGGGGGACTGTCTTCGGGAGCCCATCATCTGCAAAAACATCCCACGCTAGTCCCTGGCT
 GGACCAAGCCCATCACATTGGCAGGCACGCCATGGCGACCAGTACAAGCCACAGACTTTGTGGCAGA
 CCGGGCCGGCAGCTTTCAAATGGTCTTACCCCAAAGATGGCAGTGGTGTCAAGGAGTGGGAAGTGTAC
 AACTTCCCGCAGCGCGGGTGGGCATGGGCATGTACAACACCGACGAGTCCATCTCAGGTTTTGCGCACA
 GCTGCTTCCAGTATGCCATCCAGAAGAAATGGCCGCTGTACATGAGCACCAAGAACCATACTGAAAGC
 CTACGATGGGCGTTTTCAAGGACATCTTCCAGGAGATCTTTGACAAGCACTATAAGACCGACTTCGACAAG
 AATAAGATCTGGTATGAGCACCGGCTCATTGATGACATGGTGGCTCAGGTCTCAAGTCTTCGGGTGGCT
 TTGTGTGGGCTGCAAGAAGTATGACGGAGATGTGCACTCAGACATCCTGGCCAGGGCTTTGGCTCCCT
 TGGCCTGATGACGTCCGTCTGGTCTGCCCTGATGGGAAGACGATTGAGGCTGAGGCCGCTCATGGGACC
 GTCACCCGCCACTATCGGGAGCACCAAGGGCCGGCCACCAGCACCAACCCCATCGCCAGCATCTTTG
 CCTGGACACGTGGCCTGGAGCACCGGGGAAGCTGGATGGGAACCAAGACCTCATCAGTGTTCAGGAT
 GCTGGAGAAGGTGTGCGTGGAGACGGTGGAGAGTGGAGCCATGACCAAGGACCTGGCGGGCTGCATTAC
 GCCTCAGCAATGTGAAGCTGAACGAGCACTTCTGAACACCACGGACTTCTCGACACCATCAAGAGCA
 ACCTGGACAGAGCCCTGGGCAGGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201152 representing NM_002168
 Red=Cloning site Green=Tags(s)

MAGYLRVVRSLCRASGSRPAWAPAALTAPTSQEPRRHADKRIKVAKPVVEMDGDDEMTRIIWQFIKEKL
 ILPHVDIQLKYFDLGLPNRDQTDQVITDSALATQKYSVAVKCATITPDEARVEEFKLLKMWKSPNGTIR
 NILGGTVFREPIICKNIPRLVPGWTKPITIGRHAHGDQYKATDFVADRAGTFKMFVTPKDGSGVKEWEVY
 NFPAGGVGMGMYNDESISGFAHSCFYAIQKKWPLYMSTKNITLKYDGRFKDIFQEIFDKHYKTDFDK
 NKIWIYEHRLIDDMVAQVLKSSGGFVWACKNYDGDVQSDILAQGFGLMTSVL VCPDGKTI EAEAAHGT
 VTRHYREHQGRPTSTNPIASIFAWTRGLEHRGKLDGNQDLIRFAQMLEKVCVETVESGAMTKDLAGCIH
 GLSNVKLNEHFLNTTDFLDTIKSNLDRALGRQ

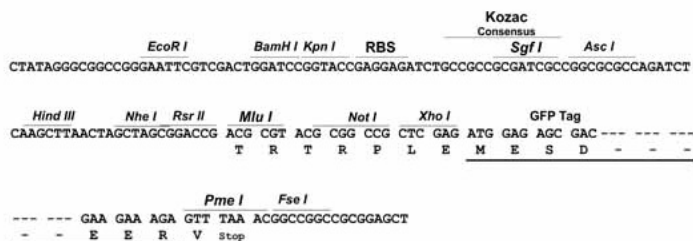
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:


ACCN: NM_002168

ORF Size: 1356 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:

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.

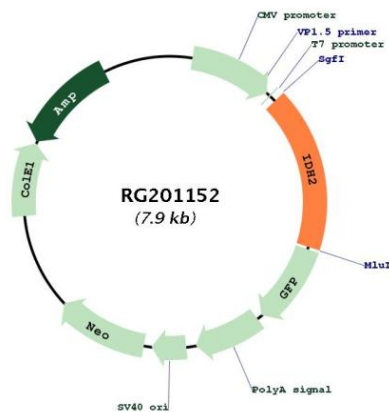
RefSeq: [NM_002168.4](#)

RefSeq Size: 1740 bp
RefSeq ORF: 1359 bp
Locus ID: 3418
UniProt ID: [P48735](#)
Cytogenetics: 15q26.1
Domains: isodh

Protein Pathways: Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways

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. 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 RG201152