

Product datasheet for **RG218883**

IDH3B (NM_174855) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH3B (NM_174855) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IDH3B
Synonyms:	RP46
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218883 representing NM_174855 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCATTGAGCGGAGTCCGCTGGCTGACCCGAGCGCTGGTCTCCGCCGGAACCCTGGGGCATGGA
GAGGTCTGAGTACCTCGGCCGCGCGCACGCTGCATCGCGGAGCCAGGCCGAGGACGTGAGGTTGGAGGG
CTCCTTTCCCGTGACCATGCTTCCGGGAGACGGTGTGGGGCTGAGCTGATGCACGCCGTC AAGGAGGTG
TTCAAGGCTGCCGCTGTCCAGTGGAGTCCAGGAGCACCACTGAGTGAGGTGCAGAATATGCCATCTG
AGGAGAAGCTGGAGCAGGTGCTGAGTTCATGAAGGAGAACAAAGTGCCATCATTGGAAAGATTCATAC
CCCGATGGAGTATAAGGGGGAGCTAGCCTCCTATGATATGCGGCTGAGGCGTAAGTTGGACTTATTTGCC
AACGTAGTCCATGTGAAGTCACTTCTGGGTATATGACTCGGCACAACAATCTAGACCTGGTGATCATT
GAGAGCAGACAGAAGGGGAGTACAGCTCTCTGGAACATGAGAGTGCAAGGGGTGTGATTGAGTGTGGAA
GATTGTACACGAGCCAAGTCTCAGCGGATTGCAAAGTTGCCTTTGACTATGCCACCAAGAAGGGGCGG
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AGGAAGTTGTGAACTGTACCCAAAAATCAAATTTGAGACAATGATCATAGACAAGTGTGCATGCAGCT
GGTGCAGAATCCTTACCAGTTTGTGCTTGTGATGCCCAATCTCTATGGGAACATTATTGACAATCTG
GCTGCTGGCCTGGTTGGGGGAGCTGGTGTGGTCCCTGGTGAGAGCTATAGTGCAGAATACGCAGTCTTTG
AGACGGGTGCCCGCACCCATTTGCCAGGCAGTGGGCAGGAATATAGCCAATCCCACGGCCATGCTGCT
GTCGGCTTCCAACATGCTGCGGCATCTTAATCTTGAGTATCACTCCAGCATGATCGCAGATGCGGTGAAG
AAGGTGATCAAAGTTGGCAAGGTTGCAACCTCTGACATGGGTGGCTATGCTACTTGCCATGACTTCACTG
AGGCTGTCATTGCTGCCTTGCCCCACCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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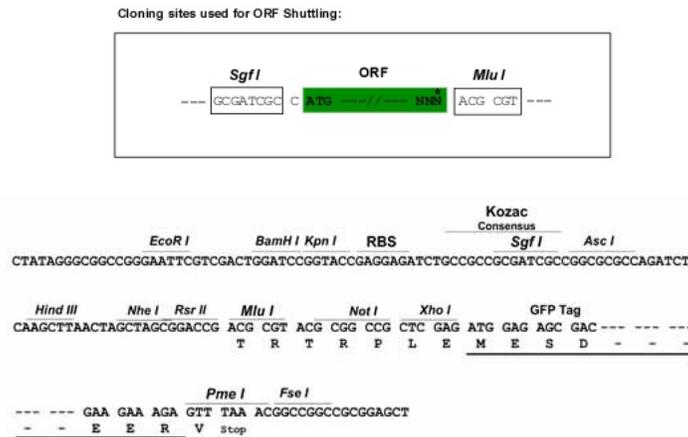
Protein Sequence: >RG218883 representing NM_174855
 Red=Cloning site Green=Tags(s)

MAALSGVRWLTRALVSAGNPGAWRGLSTSAAHAASRSQAEDVRVEGSFPVTMLPGDGVGPELMHAVKEV
 FKAAAVPVEFQEHLSEVQNMASEEKLEQVLSSMKNKVAIIGKIHTPMEYKGEASYSYDMRLRRKLDLFA
 NVVHVKSLPGYMRHNNLDLVIIREQTEGEYSSLEHESARGVIECLKIVTRAKSQRIAKFAFDYATKKGR
 GKVTAVHKANIMKLGDFLQCCEEVAELYPKIKFETMIIDNCCMLVQNPYQFDVLVMPNLYGNIIDNL
 AAGLVGGAGVVPGESYSAYAVFETGARHPFAQAVGRNINPTAMLLSASNMLRHLNLEYHSSMIADAVK
 KVIKVGKVRTSDMGYATCHDFTEAVIAALPHP

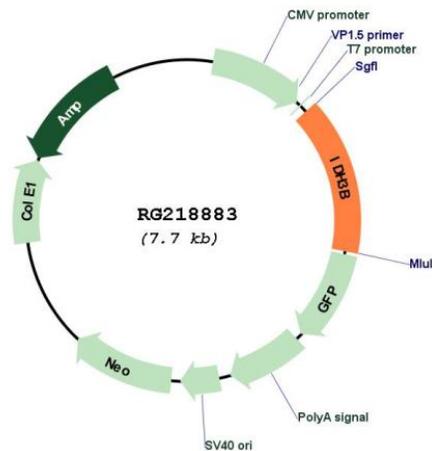
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_174855

ORF Size:	1149 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:	<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:	NM_174855.4
RefSeq Size:	1208 bp
RefSeq ORF:	1152 bp
Locus ID:	3420
UniProt ID:	O43837
Cytogenetics:	20p13
Protein Pathways:	Citrate cycle (TCA cycle), 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. 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]