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Product datasheet for RC237440

IDH2 (NM_001290114) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH2 (NM_001290114) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IDH2
Synonyms:	D2HGA2; ICD-M; IDH; IDHM; IDP; IDPM; mNADP-IDH
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237440 representing NM_001290114 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTGGAAAAGTCCCAATGGAACTATCCGGAACATCCTGGGGGGGACTGTCTTCCGGGAGCCCATCATCT GCAAAAACATCCCACGCCTAGTCCCTGGCTGGACCAAGCCCATCACCATTGGCAGGCACGCCCATGGCGA CCAGTACAAGGCCACAGACTTTGTGGCAGACCGGGCCGGCACTTTCAAAATGGTCTTCACCCCAAAAGAT GGCAGTGGTGTCAAGGAGTGGGAAGTGTACAACTTCCCCGCAGGCGGCGTGGGCATGGGCATGTACAACA CCGACGAGTCCATCTCAGGTTTTGCGCACAGCTGCTTCCAGTATGCCATCCAGAAGAAATGGCCGCTGTA CATGAGCACCAAGAACACCATACTGAAAGCCTACGATGGGCGTTTCAAGGACATCTTCCAGGAGATCTTT GACAAGCACTATAAGACCGACTTCGACAAGAATAAGATCTGGTATGAGCACCGGCTCATTGATGACATGG TGGCTCAGGTCCTCAAGTCTTCGGGTGGCTTTGTGTGGGCCTGCAAGAACTATGACGGAGATGTGCAGTC AGACATCCTGGCCCAGGGCTTTGGCTCCCTTGGCCTGATGACGTCCGTCCTGGTCTGCCCTGATGGGAAG ACGATTGAGGCTGAGGCCGCTCATGGGACCGTCACCCGCCACTATCGGGAGCACCAGAAGGGCCGGCCCA CCAGCACCAACCCCATCGCCAGCATCTTTGCCTGGACACGTGGCCTGGAGCACCGGGGGAAGCTGGATGG GAACCAAGACCTCATCAGGTTTGCCCAGATGCTGGAGAAGGTGTGCGTGGAGACGGTGGAGAGTGGAGCC ATGACCAAGGACCTGGCGGGCTGCATTCACGGCCTCAGCAATGTGAAGCTGAACGAGCACTTCCTGAACA CCACGGACTTCCTCGACACCATCAAGAGCAACCTGGACAGAGCCCTGGGCAGGCAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

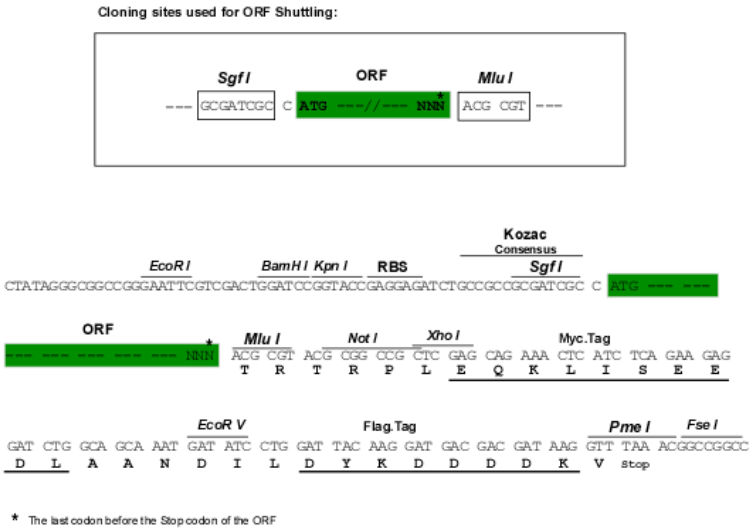
>RC237440 representing NM_001290114
Red=Cloning site Green=Tags(s)

MWKSPNGTIRNILGGTVFREPIICKNIPRLVPGWTKPITIGRHAHGDQYKATDFVADRAGTFKMVFTPKD
GSGVKEWEVYNFPAGGVGMGMYNTDESISGFAHSCFQYAIQKKWPLYMSTKNTILKAYDGRFKDIFQEIF
DKHYKTDFDKNKIWYEHRLIDDMVAQVLKSSGGFVWACKNYDGDVQSDILAQGFGSLGLMTSVLVCPDGK
TIEAEAAHGTVTRHYREHQKGRPTSTNPIASIFAWTRGLEHRGKLDGNQDLIRFAQMLEKVCVETVESGA
MTKDLAGCIHGLSNVKLNEHFLNTTDFLDTIKSNLDRALGRQ

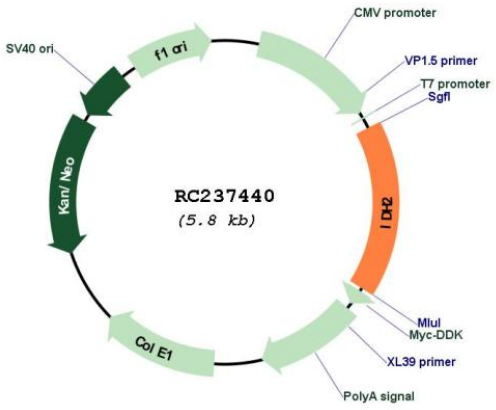
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001290114

ORF Size: 966 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:	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_001290114.2
RefSeq Size:	1560 bp
RefSeq ORF:	969 bp
Locus ID:	3418
UniProt ID:	P48735
Cytogenetics:	15q26.1
Protein Pathways:	Citrate cycle (TCA cycle), Glutathione metabolism, Metabolic pathways
MW:	36.6 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. 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]