

Product datasheet for **RG218514**

IDH3G (NM_174869) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH3G (NM_174869) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IDH3G
Synonyms:	H-IDHG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218514 representing NM_174869 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGAAGGTAGCGACCGTCGCCGGCAGCGCCGCAAGGCGGTGCTCGGGCCAGCCCTTCTCTGCC
GTCCCTGGGAGGTTCTAGGCGCCCACGAGGTCCCTCGAGGAACATCTTTTCAGAACAACAATTCTCTCC
GTCCGCTAAGTATGGCGGGCGGCACACGGTGACCATGATCCCAGGGGATGGCATCGGGCCAGAGCTCATG
CTGCATGTCAAGTCCGTCTTCAGGCACGCATGTGTACCAGTGGACTTTGAAGAGGTGCACGTGAGTTCCA
ATGCTGATGAAGAGGACATTCGCAATGCCATCATGGCCATCCGCCGGAACCGCGTGGCCCTGAAGGGCAA
CATCGAAACCAACCATAACCTGCCACCGTCGCACAATCTCGAAACAACATCCTTCGCACCAGCCTGGAC
CTCTATGCCAACGTCACTCACTGTAAGAGCCTTCCAGGCGTGGTACCCGGCACAAGGACATAGACATCC
TCATTGTCCGGGAGAACACAGAGGGCGAGTACAGCAGCCTGGAGCATGAGAGTGTGGCGGGAGTGGTGGA
GAGCCTGAAGATCATACCAAGGCCAAGTCCCTGCGCATTGCCGAGTATGCCTTCAAGCTGGCGCAGGAG
AGCGGGCGCAAGAAAGTACGCGCCGTGCACAAGGCCAACATCATGAAACTGGGCGATGGGCTTTCTCTCC
AGTGCTGCAGGGAGGTGGCAGCCCGTACCCTCAGATCACCTTCGAGAACATGATTGTGGATAACACCAC
CATGCAGCTGGTGTCCCAGCCCCAGCAGTTTGTATGTCATGGTGTATGCCAATCTCTATGGCAACATCGTC
AACATGTCTGCGCGGGACTGGTCGGGGCCAGGCCTTGTGGCTGGGGCCAATATGGCCATGTGTAGC
CGGTGTTTGAACAGCTACGAGGAACACCGGCAAGAGTATCGCCAATAAGAACATCGCCAACCCACGGC
CACCCCTGTGGCAGCTGCATGATGCTGGACCCTCAAGCTGCACTCCTATGCCACCTCCATCCGTAAG
GCTGTCTGGCATCCATGGACAATGAGAATGTGAGGTTCCCTCGCACCTACCCTGCTGCCCGCCAG
TCTCCCTGCAGCCTCCTG

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG218514 representing NM_174869
Red=Cloning site Green=Tags(s)

MALKVATVAGSAAKAVLGPALLCRPWEVLGAHEVPSRNIFSEQTIPPSAKYGGRHVTMIPGDGIGPELM
 LHVKSVFRHACVPVDFEEVHVSSNADEEDIRNAIMAIRNRVALKGNIEIETNHNLPPSHKSRNNILRTSLD
 LYANVIHCKSLPGVVTRHKDIDILIVRENTEGEYSSLEHESVAGVVEVSLKIIITKAKSLRIAIEYAFKLAQE
 SGRKKVTAVHKANIMKLDGDLFLQCCREVAARYPQITFENMIVDNTTMQLVSRPQQFDVMVMPNLYGNIV
 NNVCAGLVGGPLVAGANYGHVYAVFETATRNTGKSIANKNIANPTATLLASCMLDLHLKLSYATSIRK
 AVLASMDNENVRFPSPHTLLPRPVSPCSLL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_174869

ORF Size: 1140 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_174869.3](#)

RefSeq Size: 1723 bp

RefSeq ORF: 1143 bp

Locus ID: 3421

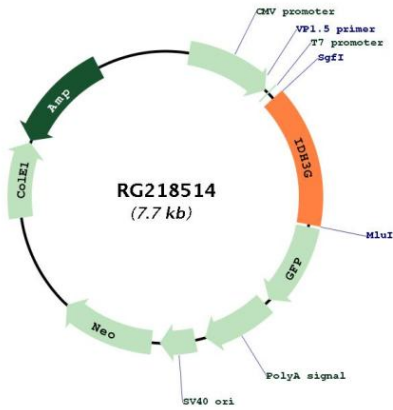
UniProt ID: [P51553](#)

Cytogenetics: Xq28

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 gamma subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase. This gene is a candidate gene for periventricular heterotopia. Several alternatively spliced transcript variants of this gene have been described, but only some of their full length natures have been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG218514