

Product datasheet for **SC124266**

IDH3G (NM_174869) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH3G (NM_174869) Human Untagged Clone
Tag:	Tag Free
Symbol:	IDH3G
Synonyms:	H-IDHG
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_174869, the custom clone sequence may differ by one or more nucleotides

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ATGGCGCTGAAGGTAGCGACCGTCGCCGGCAGCGCCGGAAGGCGGTGCTCGGGCCAGCCCTTCTGCC
GTCCCTGGGAGGTTCTAGGCGCCACGAGGTCCCCTCGAGGAACATCTTTTCAGAACAAACAATTCCTCC
GTCCGCTAAGTATGGCGGGCGGCACACGGTGACCATGATCCCAGGGGATGGCATCGGGCCAGAGCTCATG
CTGCATGTCAAGTCCGTCTTCAGGCACGCATGTGTACCAGTGGACTTTGAAGAGGTGCACGTGAGTTCCA
ATGCTGATGAAGAGGACATTCGCAATGCCATCATGGCCATCCGCCGAACCGCGTGGCCCTGAAGGGCAA
CATCGAAACCAACCATAACCTGCCACCGTCGCACAAATCTCGAAACAACATCCTTCGCACCAGCCTGGAC
CTCTATGCCAACGTCATCCACTGTAAGAGCCTTCAGGCGTGGTGACCCGGCACAAGGACATAGACATCC
TCATTGTCCGGGAGAACACAGAGGGCGAGTACAGCAGCCTGGAGCATGAGAGTGTGGCGGGAGTGGTGGA
GAGCCTGAAGATCATACCAAGGCCAAGTCCCTGCGCATTGCCGAGTATGCCTTCAAGCTGGCGCAGGAG
AGCGGGGCAAGAAAGTGACGGCCGTGCACAAGGCCAACATCATGAAACTGGGCGATGGGCTTTTCTCC
AGTGTGCAGGGAGGTGGCAGCCCGCTACCCTCAGATCACCTTCGAGAACATGATTGTGGATAACACCAC
CATGCAGCTGGTGTCCCGGCCAGCAGTTTGTGTGATGGTGTGATGCCAATCTCTATGGCAACATCGTC
ACAATGTCTGCGCGGACTGGTGGGGGCCAGGCCCTGTGGCTGGGGCCAACATATGGCCATGTGTACG
CGGTGTTTGAACAGCTACGAGGAACACCGGCAAGAGTATCGCCAATAAGAACATCGCCAACCCACGGC
CACCCCTGCTGGCCAGCTGCATGATGCTGGACCACCTCAAGCTGCACTCCTATGCCACCTCCATCCGTAAG
GCTGTCCCTGGCATCCATGGACAATGAGAATGTGAGGTTCCCCTCGCACCTACCCTGCTGCCCGCCAG
TCTCCCCCTGCAGCCTCCTGTAG
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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_174869.1](#), [NP_777358.1](#)

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]

Transcript Variant: This variant (2) differs in the 3' UTR and coding region resulting in a frameshift, compared to variant 1. Variant 2 encodes a shorter isoform (b) with a distinct C-terminus, compared to isoform a.