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Product datasheet for SC111641

IDH3G (NM_004135) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IDH3G (NM_004135) Human Untagged Clone
Tag:	Tag Free
Symbol:	IDH3G
Synonyms:	H-IDHG
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004135, the custom clone sequence may differ by one or more nucleotides

ATGGCGCTGAAGGTAGCGACCGTCGCCGGCAGCGCCGCGAAGGCGGTGCTCGGGCCAGCCCTTCTCTGCC
GTCCCTGGGAGGTTCTAGGCGCCCACGAGGTCCCCTCGAGGAACATCTTTTCAGAACAAACAATTCCTCC
GTCCGCTAAGTATGGCGGGCGGCACACGGTGACCATGATCCCAGGGGATGGCATCGGGCCAGAGCTCATG
CTGCATGTCAAGTCCGTCTTCAGGCACGCATGTGTACCAGTGGACTTTGAAGAGGTGCACGTGAGTTCCA
ATGCTGATGAAGAGGACATTCGCAATGCCATCATGGCCATCCGCCGGAACCGCGTGGCCCTGAAGGGCAA
CATCGAAACCAACCATAACCTGCCACCGTCGCACAAATCTCGAAACAACATCCTTCGCACCAGCCTGGAC
CTCTATGCCAACGTCATCCACTGTAAGAGCCTTCCAGGCGTGGTGACCCGGCACAAGGACATAGACATCC
TCATTGTCCGGGAGAACACAGAGGGCGAGTACAGCAGCCTGGAGCATGAGAGTGTGGCGGGAGTGGTGGA
GAGCCTGAAGATCATCACCAAGGCCAAGTCCCTGCGCATTGCCGAGTATGCCTTCAAGCTGGCGCAGGAG
AGCGGGCGCAAGAAAGTGACGGCCGTGCACAAGGCCAACATCATGAAACTGGGCGATGGGCTTTTCCTCC
AGTGCTGCAGGGAGGTGGCAGCCCGCTACCCTCAGATCACCTTCGAGAACATGATTGTGGATAACACCAC
CATGCAGCTGGTGTCCCGGCCCCAGCAGTTTGATGTCATGGTGATGCCCAATCTCTATGGCAACATCGTC
AACAATGTCTGCGCGGGACTGGTCGGGGGCCCAGGCCTTGTGGCTGGGGCCAACTATGGCCATGTGTACG
CGGTGTTTGAAACAGCTACGAGGAACACCGGCAAGAGTATCGCCAATAAGAACATCGCCAACCCCACGGC
CACCCTGCTGGCCAGCTGCATGATGCTGGACCACCTCAAGCTGCACTCCTATGCCACCTCCATCCGTAAG
GCTGTCCTGGCATCCATGGACAATGAGAATATGCACACTCCGGACATCGGGGGCCAGGGCACAACATCTG
AAGCCATCCAGGACGTCATCCGCCACATCCGCGTCATCAACGGCCGGGCCGTGGAGGCCTAG

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004135 unedited
GGGAATTTTAGAAACACGCACTTTCCTATGAGGGNNCGGCCGCGCAATTCGGCACGAGGG
ACGTGCGGAGGCTCTCACTTTCCGTCTGGCGCTGAAGGTAGCGACCGTCGCCGGCAGCGC
CGCGAAGGCGGTGCTCGGGCCAGCCCTTCTCTGCCGTCCCTGGGAGGTTCTAGGCGCCCA
CGAGGTCCCCTCGAGGAACATCTTTTCAGAACAAACAATTCCTCCGTCCGCTAAGTATGG
CGGGCGGCACACGGTGACCATGATCCCAGGGGATGGCATCGGGCCAGAGCTCATGCTGCA
TGTCAAGTCCGTCTTCAGGCACGCATGTGTACCAGTGGACTTTGAAGAGGTGCACGTGAG
TTCCAATGCTGATGAAGAGGACATTCGCAATGCCATCATGGCCATCCGCCGGAACCGCGT
GGCCCTGAAGGGCAACATCGAAACCAACCATAACCTGCCACCGTCGCACAAATCTCGAAA
CAACATCCTTCGCACCAGCCTGGACCTCTATGCCAACGTCATCCACTGTAAGAGCCTTCC
AGGCGTGGTGACCCGGCACAAGGACATAGACATCCTCATTGTCCGGGAGAACACAGAGGG
CGAGTACAGCAGCCTGGAGCATGAAAGTGTGGCGGGAGTGGTGGAGAGCCTGAAGATCAT
CACCAAGGCCAAGTCCCTGCGCATTGCCGAGTATGCCTTCAAGCTGGCGCAGGAGAGCGG
GCGCAAGAAAGTGACGGCCGTGCACAAGGCCAACATCATGAAACTGGGCGATGGGCTTTT
CCTCCAGTGCTGCAGGGNAGTGGCAGCCCGCTACCCTCAGATCACCTTCGAGACATGATG
CTGGNACCACCTCAGCTGCACTNCTATGCCACCTNCATNCGTNAGGCTGTCCTGGCATCC
ATGGNACATGAGAATATGCACACTC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004135 unedited
CGGAGAGGCACTGGGGAGGGGTACAGGGATGCCACCCGGGATCTGTTCAGGAAACAGCTA
TGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTGGGGAGAAGGTGCTT
TATTCTGGGATCTGCGTACCAAGCTGGCTGGGGTGCTGGAGTGGGAAGGGGAATCCAAGG
AGCAAACCAAGAAGGTCCTAGGGCCAGCCTAGGCCTCCACGGCCCGGCCGTTGATGACGC
GGATGTGGCGGATGACGTCCTGGATGGCTTCAGATGTTGTGCCCTGGCCCCCGATGTCCG
GAGTGTGCATATTCTCATTGTCCATGGATGCCAGGACAGCCTTACGGATGGAGGTGGCAT
AAGAGTGCAGCTTGAGGTGGTCCAACATCATGTTCTCGAAGGTGATCTGAGGGTAGCGGG
CTGCCACCTCCCTGCAGCACTGGAGGAAAAGCCCATCGCCCAGTTTCATGATGTTGGCCT
TGTGCACGGCCGTCACTTTCTTGCGCCCGCTCTCCTGCGCCAGCTTGAAGGCATACTCGG
CAATGCGCAGGGACTTGGCCTTGGTGATGATCTTNANGCTCTCCACCACTCCCGCCACAC
TCTTATGCTCCAGGCTGCTGTACTCGCCCTCTGTGTTCTCCCGGACAATGAGGATGTCTA
TGTCCTTGTGCCGGGTCACCACGCCTGGAANGCTCTTACAGTGGATGACGTTGGCATANA
GGTCCAGGCTGGTGCGAAGGATGTTGTTTCNAGATTGTGCCACGGTGCANNGTATGGGGT
TGGTTTNNAATGTTCGCCCTTCAGCCCCACCGCGGTCCCGGGGGATGCCCATGATGCATT
GGCAAAGTCCTCTTCATCAGCATGGAACTNACGTGCACTTTTTTAAGTCCACTGTACCAC
ATGCTGCCTTAAAAAGGACTTGAATGCACATGAACTCTCCCCATGCTCCCTGGGGGAAAT
TGGCCCGGTGCCGCCGCTACTTAGAAGGGAGGAAATTTTTTTTTTAAAAAGTTTCTTGGG
GGACTTTGGGCCCTTACCTCCCGGAGGGGAAAAAAAGGGGCCCCACCCTCTGTCGGCGTG
GAG

Restriction Sites: ECoRI-NOT

ACCN: NM_004135

Insert Size: 1160 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_004135.2, NP_004126.1
RefSeq Size:	1500 bp
RefSeq ORF:	1182 bp
Locus ID:	3421
UniProt ID:	P51553
Cytogenetics:	Xq28
Domains:	isodh
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 (1) encodes the longer isoform (a).