

Product datasheet for **RG201077**

IVD (NM_002225) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IVD (NM_002225) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IVD
Synonyms:	ACAD2; IVDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201077 representing NM_002225 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGACTGCGACTCGGCTGCTGGGTGTGCGTGTGGCGAGCTGGAGGCTGCGGCCGCCGCTTGCCGGCT
TCGTTTTCCAGCGGGCCCACTCGCTTTTGGCCGTGGACGATGCAATCAATGGGCTAAGCGAGGAGCAGAG
GCAGCTTCGTGACACCATGGCTAAGTTCCTTCAGGAGCACCTGGCCCCAAGGCCAGGAGATCGATCGC
AGCAATGAGTTCAAGAACCTGCGAGAATTTTGAAGCAGCTGGGAACCTGGGCGTATTGGGCATCACAG
CCCCTGTTCAAGTATGGCGCTCCGGCTGGGCTACCTGGAGCATGTGCTGGTGATGGAGGAGATATCCCG
AGCTTCCGGAGCAGTGGGGCTCAGTTACGGTGGCCACTCCAACCTCTGCATCAACCAGCTTGTACGCAAT
GGGAATGAGGCCAGAAAAGAGAAGTATCTCCCGAAGCTGATCAGTGGTGAGTACATCGGAGCCCTGGCCA
TGAGTGAGCCCAATGCAGGCTCTGATGTTGCTCTATGAAGCTCAAAGCGGAAAAGAAAGAAATCACTA
CATCCTGAATGGCAACAAGTTCTGGATCACTAATGGCCCTGATGCTGACGTCCTGATTGTCTATGCCAAG
ACAGATCTGGCTGCTGTGCCAGCTTCTCGGGCATCACAGCCTTCATTGTGGAGAAGGGTATGCCTGGCT
TTAGCACCTCTAAGAAGCTGGACAAGCTGGGGATGAGGGGCTCTAACACCTGTGAGCTAATCTTTGAAGA
CTGCAAGATTCTGCTGCCAACATCCTGGGCCATGAGAATAAGGGTGTCTACGTGCTGATGAGTGGGCTG
GACCTGGAGCGGCTGGTGTGGCCGGGGGCTCTTGGGCTCATGCAAGCGGCTCCTGGACCACACCATTC
CCTACCTGACCGTGAGGGAAGCCTTTGGCCAGAAGATCGGCCACTTCCAGTTGATGCAGGGGAAGATGGC
TGACATGTACACCCGCTCATGGCGTGTGCGCAGTATGCTACAATGTCGCCAAGGCCTGCGATGAGGGC
CATTGCACTGCTAAGGACTGTGCAGGTGTGATTCTTTACTCAGCTGAGTGTGCCACACAGGTAGCCCTGG
ACGGCATTCAAGTGTGGTGGCAATGGCTACATCAATGACTTTCCCATGGGCCGCTTTCTTCGAGATGC
CAAGCTGTATGAGATAGGGGCTGGGACCAGCGAGGTGAGGCGGCTGGTCAATCGGCAGAGCCTTCAATGCA
GACTTTCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG201077 representing NM_002225
 Red=Cloning site Green=Tags(s)

MATATRLLGCRVASWRLRPPLAGFVSQRAHSLLPVDDAINGLSEEQRQLRQTMKFLQEHLAPKAQEIDR
 SNEFKNLREFWKQLGNLGVLGITAPVQYGGSGLYLEHVLVMEESI SRASGAVGLSYGAHSLNCINQLVRN
 GNEAQKEKYLKPLISGEYIGALAMSEPNAGSDVVSMLKKAEEKGNHYILNGNKFWITNGPDADVLIVYAK
 TDLAAVPASRGITAFIVEKGMPPGFSTSKKLDKLGMRGSNTCELIFEDCKIPAANILGHENKGVYVLM SGL
 DLERLVLAGGPLGLMQAVLDHTIPYLHVREAFGQKIGHFQLMQGKMADMYTRLMACRQYVYNVAKACDEG
 HCTAKDCAGVILYSAECATQVALDGIQCFGGNGYINDFFPMGRFLRDAKLYEIGAGTSEVRRLLVIGRAFNA
 DFH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002225

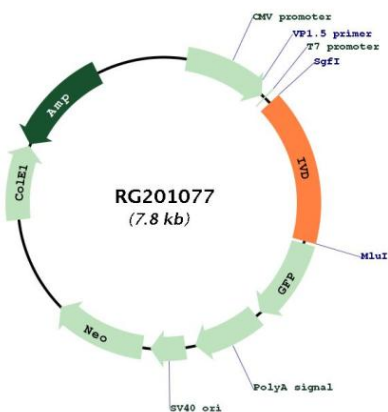
ORF Size: 1269 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_002225.2 , NP_002216.1
RefSeq Size:	2216 bp
RefSeq ORF:	1272 bp
Locus ID:	3712
UniProt ID:	P26440
Cytogenetics:	15q15.1
Domains:	Acyl-CoA_dh, Acyl-CoA_dh_M, Acyl-CoA_dh_N
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Valine, leucine and isoleucine degradation
Gene Summary:	Isovaleryl-CoA dehydrogenase (IVD) is a mitochondrial matrix enzyme that catalyzes the third step in leucine catabolism. The genetic deficiency of IVD results in an accumulation of isovaleric acid, which is toxic to the central nervous system and leads to isovaleric acidemia. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Aug 2017]

Product images:



Circular map for RG201077