

Product datasheet for **RG228318**

IVD (NM_001159508) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IVD (NM_001159508) 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:	>RG228318 representing NM_001159508 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGAGATGGCGACTGCGACTCGGCTGCTGGGGTGGCGTGTGGCGAGCTGGAGGCTGCGGCCGCCG
TTGCCGGCTTCGTTTCCAGCGGGCCCACTCGCTTTTGGCCGTGGACGATGCAATCAATGGGCTAAGCGA
GGAGCAGAGGCAGGAATTTGGAAGCAGCTGGGAACCTGGGCGTATTGGGCATCACAGCCCTGTTTCAG
TATGGCGGCTCCGGCCTGGGCTACCTGGAGCATGTCTGGTATGGAGGAGATATCCCGAGCTTCCGGAG
CAGTGGGGCTCAGTTACGGTGCCCACTCCAACCTCTGCATCAACCAGCTTGTACGCAATGGGAATGAGGC
CCAGAAAGAGAAGTATCTCCCGAAGCTGATCAGTGGTGTAGTACATCGGAGCCCTGGCCATGAGTGAGCCC
AATGCAGGCTCTGATGTTGTCTCTATGAAGCTCAAAGCGAAAAGAAAGAAATCACTACATCCTGAATG
GCAACAAGTTCTGGATCACTAATGGCCCTGATGCTGACGTCTGATTGTCTATGCCAAGACAGATCTGGC
TGCTGTGCCAGCTTCTCGGGCATCACAGCCTTATTGTGGAGAAGGGTATGCCTGGCTTATGACACCTCT
AAGAAGCTGGACAAGCTGGGGATGAGGGGCTCTAACACCTGTGAGCTAATCTTTGAAGACTGCAAGATTC
CTGCTGCCAATCCTGGGCCATGAGAATAAGGGTGTCTACGTGCTGATGAGTGGGCTGGACCTGGAGCG
GCTGGTGTGGCCGGGGGCTCTTGGGCTCATGCAAGCGGTCTGGACCACACCATTCCCTACCTGCAC
GTGAGGGAAGCCTTTGGCCAGAAGATCGGCCACTTCCAGTTGATGCAGGGGAAGATGGCTGACATGTACA
CCCGCCTCATGGCGTGTGGCAGTATGTCTACAATGTGCGCAAGCCCTGCGATGAGGGCCATTGCACTGC
TAAGGACTGTGCAGGTGTGATTCTTTACTCAGCTGAGTGTGCCACACAGGTAGCCCTGGACGGCATTTCAG
TGTTTTGGTGGCAATGGTACATCAATGACTTTCCCATGGGCCGCTTTCTTCGAGATGCCAAGCTGTATG
AGATAGGGGCTGGGACCAGCGAGGTGAGGCGGCTGGTCATCGGCAGAGCCTTCAATGCAGACTTTTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG228318 representing NM_001159508
 Red=Cloning site Green=Tags(s)

MAEMATA RLLGWRVASWRLRPPLAGFVSQRAHSLLPVDDAINGLSEEQRQEFWKQLGNLGVLGITAPVQ
 YGGSGLGYLEHVLVMEEISRASGAVGLSYGAHNSLNCINQLVRNGNEAQKEKYLPKLISGEYIGALMSEP
 NAGSDVVSMLKAEKKGNYHILNGNKFWITNGPDADVLIVYAKTDLAAVPASRGITAFIVEKGMPPGFSTS
 KKLDKLGMRGSNTCELIFEDCKIPAANILGHENKGVYVLMISGLDLERLVLAGGPLGLMQAVLDHTIPYLH
 VREAFGQKIGHFQLMQGKMADMYTRLMACRQYVYNNVAKACDEGHCTAKDCAGVILYSAECATQVALDGIQ
 CFGNGYINDFPMGRFLRDAKLYEIGAGTSEVRRLLVIGRAFADFH

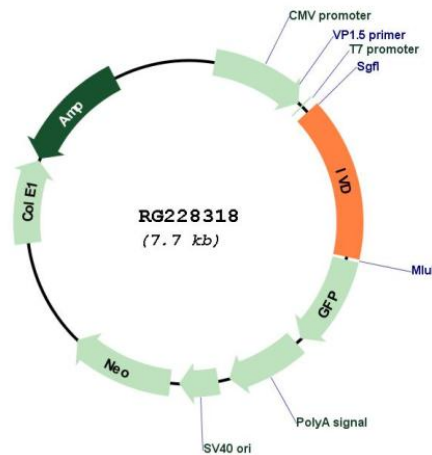
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001159508

ORF Size:	1188 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:	<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_001159508.1 , NP_001152980.1
RefSeq Size:	4575 bp
RefSeq ORF:	1182 bp
Locus ID:	3712
UniProt ID:	P26440
Cytogenetics:	15q15.1
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]