

Product datasheet for SC326953

IVD (NM_001159508) Human Untagged Clone

Product data:

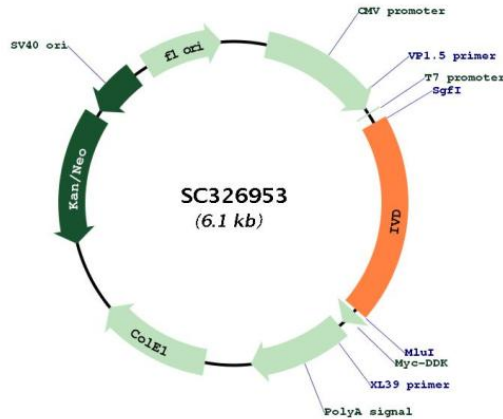
Product Type:	Expression Plasmids
Product Name:	IVD (NM_001159508) Human Untagged Clone
Tag:	Tag Free
Symbol:	IVD
Synonyms:	ACAD2; IVDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC326953 representing NM_001159508. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCAGAGATGGCGACTGCGACTCGGCTGCTGGGGTGGCGTGTGGCGAGCTGGAGGCTGCGGCCCGC
CTTGCCGGCTTCGTTTCCAGCGGGCCCACTCGCTTTTGGCCGTGGACGATGCAATCAATGGGCTAAGC
GAGGAGCAGAGGCAGGAATTTTGAAGCAGCTGGGGAACCTGGGCGTATTGGGCATCACAGCCCCTGTT
CAGTATGGCGGCTCCGGCCTGGGCTACCTGGAGCATGTGCTGGTATGGAGGAGATATCCCGAGCTTCC
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TGCAAGATTCCTGCTGCCAATCTCGGGCCATGAGAATAAGGGTGTCTACGTGCTGATGAGTGGGCTG
GACCTGGAGCGGCTGGTGTGCCGGGGGGCCTTTGGGCTCATGCAAGCGGTCTTGACCACACCATT
CCCTACCTGCACGTGAGGGAAGCCTTTGGCCAGAAGATCGGCCACTTCCAGTTGATGCAGGGGAAGATG
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GGCCATTGCACTGCTAAGGACTGTGCAGGTGTGATTCTTTACTCAGCTGAGTGTGCCACACAGGTAGCC
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GATGCCAAGCTGTATGAGATAGGGGCTGGGACCAGCGAGGTGAGGCGGCTGGTTCATCGGCAGAGCCTTC
AATGCAGACTTTCACTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: SgfI-MluI



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Plasmid Map:


ACCN: NM_001159508

Insert Size: 1191 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001159508.1](#)

RefSeq Size: 4575 bp

RefSeq ORF: 1191 bp

Locus ID: 3712

UniProt ID: [P26440](#)

Cytogenetics: 15q15.1

Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Valine, leucine and isoleucine degradation
MW:	43.1 kDa
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) lacks an in-frame coding exon in the 5' coding region compared to variant 1. The resulting shorter isoform (2) lacks an internal protein segment compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. CCDS Note: The coding region has been updated to shorten the N-terminus, annotating a downstream start codon, to one that is more supported by available conservation data.</p>