OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC300133

DIO1 (NM_000792) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DIO1 (NM_000792) Human Untagged Clone
Symbol:	DIO1
Synonyms:	5DI; TXDI1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_000792 edited GAGCTTACTCTGGCTTTGCCGAGATGGGGCTGCCCCAGCCAGGGCTGTGGCTGAAGAGGC TCTGGGTGCTCTTGGAGGTGGCTGTGCATGTGGTCGTGGGTAAAGTGCTTCTGATATTGT TTCCAGACAGAGTCAAGCGGAACATCCTGGCCATGGGCGAGAAGACGGGTATGACCAGGA ACCCCCATTTCAGCCACGACAACTGGATACCAACCTTTTTCAGCACCCAGTATTTCTGGT TCGTCTTGAAGGTCCGTTGGCAGCGACTAGAGGACACGACTGAGCTAGGGGGTCTGGCCC CAAACTGCCCGGTGGTCCGCCTCTCAGGACAGAGGTGCAACATTTGGGAGTTTATGCAAG GTAATAGGCCACTGGTGCTGAATTTTGGAAGTTGTACCTGACCTTCATTTATGTTCAAAT TTGACCAGTTCAAGAGGCTTATTGAAGACTTTAGTTCCATAGCAGATTTTCTTGTCATTT ACATTGAAGAAGCACATGCATCAGATGGCTGGGCTTTTAAGAACAACATGGACATCAGAA ATCACCAGAACCTTCAGGATCGCCTGCAGGCAGCCCATCTACTGCTGGCCAGGAGCCCCC AGTGCCCTGTGGTGGTGGACACCATGCAGAACCAGAGCAGCCAGCTCTACGCAGCACTGC CTGAGAGGCTCTACATAATCCAGGAGGGCAGGATCCTCTACAAGGGTAAATCTGGCCCTT GGAACTACAACCCAGAGGAAGTTCGTGCTGTTCTGGAAAAGCTCCACAGTTAATCTGGAC AGATACCTCAATTCTAGGTGACCAACGGGAGGGCTTCTCAAGGCTTAGCTCTCCCTGAGA CCCAGCTGGCTTTTACCCTTGACCTGTGTCCCTAGCTGAATCACTAGCTCAGATTTTTCT GATCTAAGCAAACAACTCCCAGCTGAGGAATGCAGGCCACAGCACCCAATCAAGACAAAT TGTTATTATCAGAAAATGAAGCAACACTTGAGCTGTTCAGGCCAGTTCCCTGTTGAAGAA ACAGTTCCCTGTTGAAGAAAGTAGAGCCTGACACTGCTCCCACTTTGGAGACCACATTCC CTGCA
Restriction Sites:	Please inquire
ACCN:	NM_000792
Insert Size:	1100 bp

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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). The expression of this clone is not guaranteed due to the nature of selenoproteins.
OTI Annotation:	This clone encodes a selenoprotein containing the rare amino acid selenocysteine (Sec). Sec is encoded by UGA codon, which normally signals translational termination. Expression of this clone is not guaranteed due to the nature of selenoproteins.
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_000792.4, NP_000783.2
RefSeq Size:	1868 bp
Locus ID:	1733
UniProt ID:	P49895
Cytogenetics:	1p32.3
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	The protein encoded by this gene belongs to the iodothyronine deiodinase family. It catalyzes the activation, as well as the inactivation of thyroid hormone by outer and inner ring deiodination, respectively. The activation reaction involves the conversion of the prohormone thyroxine (3,5,3',5'-tetraiodothyronine, T4), secreted by the thyroid gland, to the bioactive thyroid hormone (3,5,3'-triiodothyronine, T3) by 5'-deiodination. This protein provides most of the circulating T3, which is essential for growth, differentiation and basal metabolism in vertebrates. This protein is a selenoprotein, containing the rare amino acid selenocysteine (Sec) at its active site. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jun 2018] Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a).