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Product datasheet for MC208390

Dio1 (NM_007860) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dio1 (NM_007860) Mouse Untagged Clone
Symbol:	Dio1
Synonyms:	5DI; D1; ITDI1; TXDI1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC208390 representing NM_007860
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGCTGCCCCAGCTATGGCTGTGGCTGAAGCGGCTTGTGATATTCCTGCAGGTGGCCTTGGAGGTGG
CTGTAGGCAAGGTGCTAATGACGCTGTTCCCAGGGAGAGTCAAACAGAGCATCCTGGCCATGGGCCAGAA
GACCGGGATGGCCAGGAACCCCCGATTCGCCCCTGACAACTGGGTCCCCACCTTCTTCAGCATCCAGTAC
TTCTGGTTTGTCCTGAAGGTCCGCTGGCAGAGACTGGAAGACAGGGCTGAGTTTGGGGGGCTGGCCCCCA
ACTGCACCGTGGTCTGCCTCTCAGGACAGAAGTGCAACATCTGGGATTTCATTCAAGGCAGCAGGCCCCT
GGTGTTGAACTTTGGCAGTTGCACCTGACCTTCATTTCTTCTCAAATTTGACCAGTTCAAGAGACTCGTA
GATGACTTTGCCTCCACAGCCGATTTCCTCATCATTTACATTGAAGAAGCTCACGCCACAGATGGCTGGG
CTTTTAAGAACAACGTGGACATCCGGCAGCACCGGAGCCTCCAGGAGCGCGTGCGGGCAGCCCGCATGCT
GCTGGCCAGGAGCCCCCAGTGCCCTGTGGTGGTGGACACAATGCAGAACCAGAGCAGCCAGCTCTACGCG
GCCCTGCCTGAGAGGCTCTACGTGATACAGGAGGGCAGGATCTGCTACAAGGGTAAAGCTGGCCCTTGGA
ACTACAATCCTGAGGAAGTCCGAGCTGTCCTGGAAAAGCTTTGCACTCCACCTAGACACGTGCCTCAGCT
CTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Restriction Sites:	SgfI-MluI
ACCN:	NM_007860

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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_007860.4, NP_031886.3
RefSeq Size:	1707 bp
RefSeq ORF:	774 bp
Locus ID:	13370
UniProt ID:	Q61153
Cytogenetics:	4 50.18 cM
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 is expressed predominantly in the liver and kidney and 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. [provided by RefSeq, Apr 2016]

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