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 MG223143

Dio3 (NM_172119) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dio3 (NM_172119) Mouse Tagged ORF Clone
Symbol:	Dio3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG223143 representing NM_172119 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCCTCGCCAGGCCGCCTCGAGGTTGGTGGTCGGAGAAGGTGAAGGGCCCCCGGGGGCTTCGGGGCCCG CGGCCACCATGCTCCGCTCTCTGCTGCTTCACTCGCTGAGGCTCTGCGCCCAGACCGCCTCGTGCCTCGT GCTGTTCCCGCGCTTCCTAGGCACGGCCTTCATGCTCTGGCTTTTAGATTTCTTGTGCATCCGCAAGCAT TTCCTGCGCCGTCGCCATCCTGACCACCCTGAGCCCGAAGTAGAGCTCAACAGTGAAGGCGAGGAGATGC CCCCTGACGACCCGCCCATATGCGTATCAGACGACAACCGTCTGTGCACCCTGGCCTCTCTCAAAGCCGT GTGGCATGGCCAGAAATTGGATTTCTTCAAGCAAGCCCATGAGGGTGGCCCAGCGCCCAACTCGGAGGTT GTCCGACCTGATGGCTTCCAGAGCCAGCGCATCCTCGACTACGCACAAGGGACCCGCCCGTTGGTGCTCA ATTTTGGCAGCTGTACCTGACCACCGTTCATGGCGCGGATGAGCGCCTTCCAGCGCCTGGTCACCAAGTA CCAGCGCGACGTTGACTTCCTTATCATCTACATCGAGGAAGCCCACCCATCCGACGGCTGGGTCACCACA GATTCACCCTATGTCATCCCCCAGCACCGCAGCCTGGAGGACCGTGTCAGCGCAGCGAGAGTACTACAAC AAGGTGCACCTGGCTGTGCTCTGGTCCTGGACACTATGGCCAACTCTAGCAGTTCCGCATATGGTGCCTA TTTTGAGCGCCTCTACGTCATCCAGAGTGGCACCATCATGTACCAGGGAGGCCGTGGCCCCGACGGTTAC CAGGTGTCTGAGTTGCGCACTTGGTTGGAGCGCTATGATGAACAGTTGCATGGTACTAGGCCACATCGAT TC ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

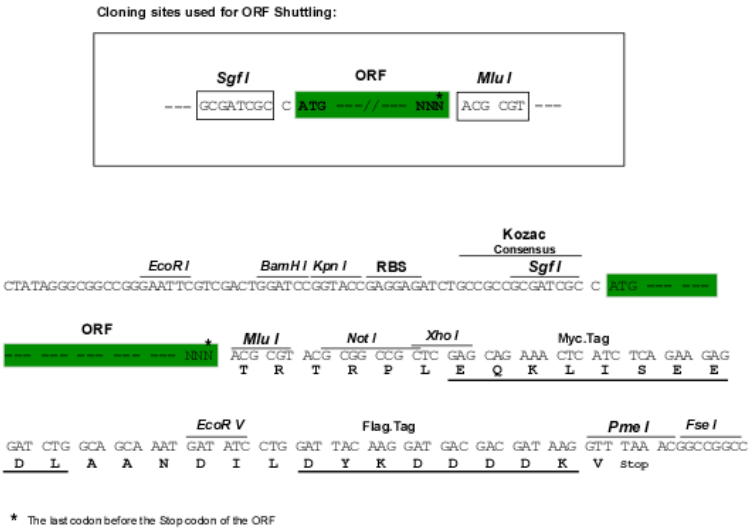
>MG223143 representing NM_172119
Red=Cloning site Green=Tags(s)

MPRQAASRLVVGEGEGPPGASGPAATMLRSLLLHSLRLCAQTASCLVLFPRFLGTAFMLWLLDFLCIRKH
FLRRRHPDHPEPEVELNSEGEEMPPDDPPICVSDDNRLCTLASLKAVWHGQKLDFFKQAHEGGPAPNSEV
VRPDGFQSQRILDYAQGTRPLVLNFGSCT*PPFMARMSAFQRLVTKYQRDVDFLIIYIEEAHPSDGWVTT
DSPYVIPQHRSLEDRVSAARVLQQGAPGCALVLDTMANSSSSAYGAYFERLYVIQSGTIMYQGGRGPDGY
QVSELRTWLERYDEQLHGTRPHRF

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_172119

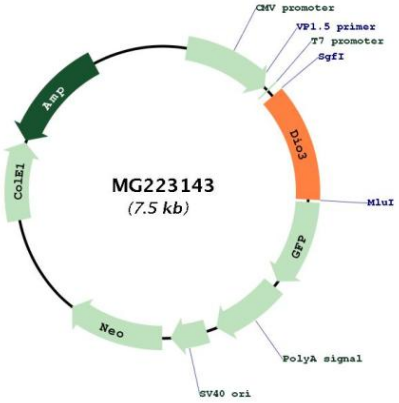
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_172119.2, NP_742117.2
RefSeq Size:	1872 bp
RefSeq ORF:	915 bp
Locus ID:	107585
UniProt ID:	Q91ZI8
Cytogenetics:	12 F1
Gene Summary:	This is an intronless, imprinted gene that is preferentially expressed from the paternal allele in the mouse fetus. The encoded protein belongs to the iodothyronine deiodinase family, and catalyzes the inactivation of thyroid hormone by inner ring deiodination of the prohormone thyroxine (T4) and the bioactive hormone 3,3',5-triiodothyronine (T3) to inactive metabolites, 3,3',5' triiodothyronine (RT3) and 3,3'-diiodothyronine (T2), respectively. It is highly expressed in placenta, fetal and neonatal tissues, and thought to prevent premature exposure of developing fetal tissues to adult levels of thyroid hormones. It thus plays a critical role in mammalian development by regulating circulating fetal thyroid hormone concentration. Knockout mice lacking this gene exhibit severe abnormalities related to development and reproduction. This protein is a selenoprotein, containing the rare selenocysteine (Sec) amino acid 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, Jun 2016]

Product images:



Circular map for MG223143