

Product datasheet for **MG226643**

Disc1 (NM_174854) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Disc1 (NM_174854) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Disc1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG226643 representing NM_174854
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

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ACGGTACGCGGCCGCTCGAG – GFP Tag – GTTAA

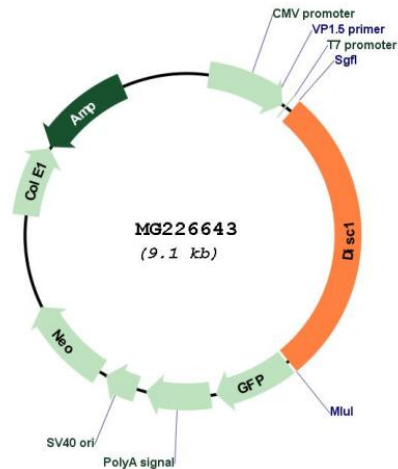
Protein Sequence: >MG226643 representing NM_174854
Red=Cloning site Green=Tags(s)

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MQGGGPRGAPIHSPSHGADSGHGLPPAVAPQRRRLTRRPGYMRSTAGSGIGFLSPAVGMPHPSSAGLTGQ
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RLTGSFPGDGGFWQELLSSDSFKSLAPSLDAPWNGSRGLKTVKPLASPALNGPADIASLPGFQDTFTS
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VTRSSSRQSECGTVSSSSSDTGFSSQDASSAGGRGDQGGGWADAHGWHTLLREWEPMLQDYLLSNRRQLE
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

Plasmid Map:



ACCN: NM_174854

ORF Size: 2556 bp

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](#)

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:

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_174854.2](#), [NP_777279.2](#)

RefSeq Size: 2597 bp

RefSeq ORF: 2559 bp

Locus ID: 244667

UniProt ID: [Q811T9](#)

Cytogenetics: 8 73.26 cM

Gene Summary: Involved in the regulation of multiple aspects of embryonic and adult neurogenesis. Required for neural progenitor proliferation in the ventricular/subventricular zone during embryonic brain development and in the adult dentate gyrus of the hippocampus. Participates in the Wnt-mediated neural progenitor proliferation as a positive regulator by modulating GSK3B activity and CTNNB1 abundance. Plays a role as a modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including neuron positioning, dendritic development and synapse formation. Inhibits the activation of AKT-mTOR signaling upon interaction with CCDC88A. Regulates the migration of early-born granule cell precursors toward the dentate gyrus during the hippocampal development. Plays a role, together with PCNT, in the microtubule network formation.[UniProtKB/Swiss-Prot Function]