

## Product datasheet for **MC222089**

### Disc1 (NM\_174854) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Disc1 (NM_174854) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Disc1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

Fully Sequenced ORF: >MC222089 representing NM\_174854  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACAGGGCGGGGTCCCGGGGCGCTCCGATCCACAGTCCGAGCCACGGCGCAGACAGTGGGCATGGCT  
 TACCGCCTGCAGTAGCCCTCAGAGGCGGCGGCTGACACGAGACCAGGCTACATGAGAAGCACAGCGGG  
 TTCTGGGATCGGGTTCTCTCTCCAGCAGTGGGCATGCCACACCCGAGCTCAGCAGGGCTGACAGGCCAG  
 CAGTCCCAACTCACAGTCCAAGGCTGGACAGTGGGACTTGACCCTGGGAGCCACTGCCAAGCCTCAC  
 TGGTGGGCAAGCCTTTTCTCAAGAGCTCCCTTGCCCTGTGGCTCTGAGGGCCACCTGCACCCAGC  
 CCAGCGCTCTATGAGAAAAAGACCAGTGCCTTTGCGGTTCAATCCAAGAATGACAGCAGACAATCTGAG  
 AGGCTGACTGGGTCAATTAAGCCTGGGACAGTGGGTTTTGGCAAGAATTATTATCTTCAGACAGCTTTA  
 AGTCTCTGGCTCCTAGCCTTGATGCACCCTGGAACAAGGGATCAAGGGGCTGAAGACTGTGAAACCTCT  
 GGCATCACGGCGTTGAATGGCCCCGCTGATATCGCATCCCTCCCGGCTCCAAGACACCTTCACTTCC  
 AGCTTCAGCTTCACTCAACTCTCCCTTGGTGTCTGCTGGAGAACCGGAGAGAAGCAGAAGGTTGCCTGCCAT  
 CCAGAGAGGCCGAACCTCTGCATCAGAGGCCCAAGAGATGGCAGCTGAAGCATCTAGCTCAGACAGGCC  
 CCACGGGGATCCTCGGCATCTCTGGACCTTCACTTTCACGCTGTCCAGGCTTGGCGGACTTGGCTCAG  
 GTGACAAGGAGCAGCAGCAGGCAATCAGAAATGTGGCAGGCTCTCTCTCTCTCGGACACTGGCTTCT  
 CTTCCAGGATGCATCCTCCGCTGGTGGGCGGGCGACCAGGGCGGGCGCTGGGCCGATGCCATGGATG  
 GCATACATTGCTCAGGGAATGGGAGCCCATGCTGCAGGACTACCTACTGAGCAACCGCAGGCAGCTGGAG  
 GTCACCTCCTTAATTTTAAAGCTTCAGAAATGTCAAGAAAAAGTGGTTCGAGGATGGCGATTACGACTG  
 CAGACATTGAGACAGAGGTTGGAAGACTGGAACAGGAGAAAGCCGCTGTCTGGCTCTGCCTTCC  
 ACAGCAACTGCTCTTCGAGCTTCTTGGGTTACCTGGCAGCACAGATACAGGTGGCCTTGCATGGAGCC  
 ACCCAAAGGGCCGCGCAGCGATGATCCAGAAGCCCCACTTGAAGGACAGCTGAGGACTACCGCCAGGATA  
 GCCTGCCTGCATCCATCACCAGGAGGGACTGGCTTATTCGAGAGAAAACAGCGATTGCAGAAGGAAATCGA  
 AGCTCTCCAAGCACGGATGTCTGCGCTGGAGGCAAGGAAAAACGGCTGAGCCAAGAGTTGGAGGAGCAG  
 GAGGTGCTGCTCCGGTGGCCGGCTGTGACCTGATGGCACTGGTGGCCAGATGTCCCAGGCCAGCTGC  
 AGGAGGTGAGCAAGGCCCTGGGAGAGACCCTGACCTCTGCCAACCAGGCTCCCTCCAGGTGGAGCCACC  
 TGAGACCCTCAGGAGCCTCCGGGAAAGGACAAAATCACTGAACCTGGCTGTGAGAGAACTACTGCTCAG  
 GTGTGCTCAGGTGAGAAGCTGTGCAGCTCTCTGAGGAGGAGACTCAGTGACCTCGACACCAGGCTGCCTG  
 CCTTGCTGGAAGCAAGATGCTGGCCCTATCAGGAAGCTGCTTCTCCACAGCCAAGGAGCTCACGGAGGA  
 GATTTGGGCTTGTCTGTCAGAGCGGGAAGGGCTAGAGATGTTCTGGGCAAGGCTGTTGGCACTCAGCTCC  
 AGGAACAGCAGAAGGCTGGGCATCGTCAAAGAGGATCACCTCAGGTGCAGGCAGGACCTGGCACTCCAGG  
 ACGCCGCCCAAAAACACGCATGAAGGCAAACTGTGAAGTGCATGGAAGTGTGGAAGGTGAGCTGAG  
 CAGCTGCAGGTGCCCGCTGCTTGGGAGAGTGTGGAAGCAGACTTGGAGACTTGTGAGTTGCTAATGCAG  
 AGCCTGCAGCTTCAGGAAGCAGGCAGCAGCCACACGCAGAGGACGAGGAGCAGGTGCATAGCACAGGAG  
 AGGCCGCCCAGACAGCTGCTCTGGCTGTCCCTCGAACACCCACCCCGAAGAAGAAAAGTCCCCCTTGA  
 GGTGCTCCAGGAGTGGGACACCCACTCAGCTCTTCCACACACTGTGCTGCAGGCCCATGGAAGAGGAT  
 TCTCACATCGTTTCTGCTGAAGTTGGAGAAAAGTGCAGGCAAGCCATAGGCGTGAAGCTCCTACACTGGAAG  
 ACCAGTTCTCGGAGCCATGTACAGTACGATGAGGCTCTCTTTCAGTCTCTCCAGGGGGAGCTCCAGAC  
 GGTGAAGGAAACTGCAGGCCATGATCTGCAGCTCCAGCCAACAAGGAGGCAGGAGAGGCTCAGCT  
 TCCTATCCGACAGCTGGTGTCTCAGGAAACCGAGGCC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI  
 ACCN: NM\_174854  
 Insert Size: 2559 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](mailto: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](#)

**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]

Transcript Variant: This variant (1) is the longer transcript and it encodes the longer protein (isoform 1).