

## Product datasheet for MR225228

### Dlc1 (NM\_015802) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dlc1 (NM_015802) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dlc1
Synonyms:	A730069N07Rik; Arhgap7; dlc-1; HP; STARD12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR225228 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGTAGAGACGAGCCGGACACCATGATCCTAACACAAATTGAAGCCAAGGAAGCTTGCAGCTGGCTGA  
GAGTGACTGGTTTCCCCAGTATGCACAGCTGTATGAAGATCTACTGTTCCCTATTGATATTGCGCTGGT  
CAAGAGAGAACATGACTTCTTGGACAGAGACGCCATCGAGGCTCTCTGCAGGCGCTTAAATACTCTAAAC  
AAGTGTGCAGTCATGAAGCTGGAGATCAGTCCTCACCGGAAGCGAAGTGAGGATTCGGATGAAGATGAGC  
CTTGCGCCATAAGCGGCAAGTGGACTTTCCAGAGGGACAGCAAGCGGTGGTCCCGCCTTGAAGAGTTTGA  
CGTCTTTTCCCCAAAGCAGGATCCAATCCCTGGGTCCCCAGACAACCTCTCGTTTGCAAAGCGCCACAAGC  
CACGAAAGCATGCTGACAGACCTCAGCGAGCACCAGGAGGTGGCCTCTGTCCGAAGCCTCAGCAGACCA  
GCAGCAGCGTCCCCACCCACGCAGCCCACAGTGGAGATGCCACTACGCCCCGAACCAATTCGGTCATCAG  
CGTCTGCTCCTCCGGACACTTTGTAGGCAATGATGACTCTTTTTCCAGCCTGCCGTCTCCAAGGAAGT  
TCCAGTTCAGTTTTAGCATGAAAGGCCACCACGAGAAGAACAAGTGAAGACGCGGAGCCTGCTCA  
AACGCATGGAGAGCCTGAAGCTCAAGGGCTCCCACCACAGCAAGCACAAGGCGCCTTCCAAGCTGGGTT  
GATCATCAGTGTCCATTCTGCAGGAGGTATGGATGAGGCAAAGCTGAAGCAGCTGAAGTGTGTGGAG  
ATCTCAGCCCTCAATGGCAACCATCAACGTGCCATGGTACGGAAAAGGAGCGTGTCTAACTCCACCC  
AGACCAGCAGCAGCAGCAGCCAATCAGAGACCAGCAGCGGTACGCACACCCAGCCGGTCAACCAGGAC  
CCGGAGCCTCAGCACCTGTAACAAGCGGGTGGGCATGTATCTAGAGGGCTTCGACCCATTAGTCAGTCC  
ACCTTGAACAACGTGACGGAGCAGAATAAAAAACCGTGAGAGCTACCCAGAGGACACGGTGTCTTACA  
TTCCCGAAGATCACAAAGCCCGCACCTTCCCTAAGGCCCTCTCCCATGGCAGTTTCTGTCCCTCGGGAAA  
CAGTTCTGTGAAGTGGAGACCGGAAGCTTCCATGGCCCTGGCCATCTCAGCCTACGGAGAGAAAACAGC  
CATGACAGTCCTAAGGAGCTGAAGAGACGCAATCTTCCAGCTCTCTGAGCAGCCGCTGAGCATCTATG  
ATAACGTACCGGTTCTATCCTGTACTCCAGCTCGGGAGAAGTGGCCGACCTGGAGAATGAGGACATCTT  
CCCTGAGCTGGATGACATTCTCTACCACGTGAAGGGGATGCAGCGGATAGTCAACCAGTGGTCCGAGAAG



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TTTTCCGACGAGGGAGACTCGGACTCAGCCCTGGACTCTGTCTCTCCTTGCCCGTCATCTCCAAAACAGA  
TACACCTGGATGTGGACCATGACCGAAGGACACCCAGTGACCTGGACAGCACAGGCAACTCCCTCAATGA  
GCCCGAAGAGCCCACTGATATCCCGAAAGAAGAGACTCAGGGGTGGGGGCTTCCCTGACCAGGTGCAAT  
AGGCACAGACTGAGGTGGCACAGCTTCCAGAGCTCCCACCGGCCGAGCCTCAACTCCGTGCTACTGCAGA  
TAACTGCCAGTCTGTGGCCAGATGAACCTGCTGCAGAAATACTCGCTCCTGAAATTGACGGCCCTGT  
GGAAAAGTACACGCCCTTCCAACAAGCAGGCTTCCAGTGGGCTGTCGCCAAGTTCATGAAAAGATCAAG  
GTTCAGACTACAAGACCGGAGTGTGTTGGGCTCCACTGACTGTGAACGTGCAGCAGCCTCAGGACAGC  
CCCTGCCCGAGACATCCAGCAGGCCATGCGCTACCTCCGTAACCACTGTCTGGACCAGTCCGGCTCTT  
CAGGAAGTCAGGTGTCAAATCCCGGATCCAGGCTCTACGCCAGATGAATGAAAGCGCTGAAGATAATGTC  
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CCCTCATGACGAACAACTCTCCGAAACCTTCTGCAGATCTACCAGTATGTTCCCAAGGACCAGCGCT  
CCAAGCCATCAAGGCGGCCATTATGCTCCTGCCGACGAGAACCAGGAGGTTCTGCAGACACTTCTCTAT  
TTCCTGAGCGATGCACAGCGGCTGTGAAAGAAAACCAGATGACTCCCACCAACCTGGCTGTGTGCCTAG  
CTCCGTCCTCTCCACCTCAACACCCTGAAGCGAGAGAATTCTTCTCCAAGGTAAATGCAAAGAAAACA  
GAGTTTGGGCAAACCAGACCAGAAAGACCTGAATGAAAACCTAGCGGCGACTCAAGGGCTGGCCACATG  
ATTGCTGAGTGAAGAAGCTCTCCAGGTCCTGAGGAAATGAGCCGGTCCCGTAACTCCTACACTGAAC  
AAGAGCTGAAGCCCTTACCCTGGAGGCCCTGGGACACCTGAATAGTGACCAGCCTGCTGACTACAGACA  
CTTCTCCAGGACTGTGTGGATGGCCTGTTAAGGAGGTCAAAGAGAAGTTCAAAGGCTGGGTGACGTAC  
CCCACCTCCGAACAGGCTGAGCTGTCTATAAGAAGGTGACGGAAGACCCCGTTAAGGCTTGGAGGT  
CAACTATCGAAGTCCCGCTGCACCCGAGGAGATCTTAAAGCGCCTTCTGAAGGAGCAACACCTCTGGGA  
TGTGGACTGTGGACTCCAAGGTGATTGAAATCCTGGACAGCCAGACTGAAATCTACCAATACGTCCAA  
AACAGCATGGCGCCCCACCCTGCGCGGGACTACGTCGATTGAGGACCTGGAGGACTAATACCCAGGG  
GGGCTGTGCTCTTACTCACCTCTGTGGATCACGACCGGGCCCGTGGCGGGGTTAGGTTAATGT  
GCTCCTGTCCAGATATTTGATTGAACCTGCGGGTCAGGAAAATCCAAGCTTACCTACATGTGCAGACT  
GATTTAAGGGGCCACATGCCGGAGTGGTACTCAAATCTTTGGACATTTGTGTGCAGCCGAAGTGTAA  
AGATCCGAGACTCCTTCAGTAATCAGAACACTGAAAGCAAGGACAGAGATCTAGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR225228 protein sequence  
Red=Cloning site Green=Tags(s)

MCRDEPDTMILTQIEAKEACDWLRVTGFPQYAQLYEDLLFPIDIALVKREHDFLDRDAIEALCRRNLNLN  
KCAVMKLEISPHRKRSEDSDEDEPCAISGKWFQRDSKRWSRLEEFDFVSPKQDPIPGSPDNSRLQSATS  
HESMLTDLSEHQEVASVRSLSSTSSSVPTAAHSGDATTPTNSVIVCSSGHFVGNDDSFSSLPSPKEL  
SSF SFSMKGHHEKNTKSKTRSLKRMESLKLKGSHHKSKHKAPSKLGLIISAPILQEGMDEAKLQKLNVE  
ISALNGNHINVPMVRKRSVSNSTQTSSSSSQSETSSAVSTPSPVTRTRSLSTCNKRVGMYLEGFDPFSQS  
TLNNVTEQNYKNRESYPEDTVFYIPEDHKPGTFPKALSHGSFCPSGNSSVNWRTGSFHGPHLSLRRENS  
HDSPELKRNRSSSSLSRSLIYDNVPGSILYSSSGELADLENEIFPELDDILYHVKGMQRIVNWSEK  
FSDEGSDSALDSVSPCSPSPKQIHLVDVHRRTPSDLDSTGNSLNEPEEPTDIPERRDSVGVASLTRCN  
RHRLRWHSFQSSHRPSLNSVSLQINCQSV AQMNLQKYSLLKLTALLEKYTPSNKHGFSWAVPKFMKRIK  
VPDYKDRSVFVPLTVNVQRSGQPLPQSIQQAMRYLRNHCLDQVGLFRKSGVKSRIQALRQMNEAEDNV  
NYEQQSAYDVADMLKQYFRDLPEPLMTNKLSETFLQIYQYVPKDQRLQAIKAAIMLLPDENREVLQTLLY  
FLSDVTA AVKENQMTPTNLAVCLAPSLFHLNLTRENSSPRVMQRKQSLGKPDQDLNENLAATQGLAHM  
IAECKLFFQVPEEMSRCRNSYTEQELKPLTLEALGHLNSDQPADYRHFLLQDCVDGLFKEVKEKFKGWVSY  
PTSEQAELSYKKVSEGPLRLWRSTIEVPAPEEILKRLLEQLHWDVLLDSKVIILDSQTEIYQYVQ  
NSMAPHPARDYVVLRTWRNLPRGACALLLTSVDHDPVAGVRRVNVLLSRYLIEPCGSGKSKLTYMCRA  
DLRGHMP EWYSKSFGLCAA EVVKIRDSFSNQNTESKDTRSR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_015802

**ORF Size:** 3276 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

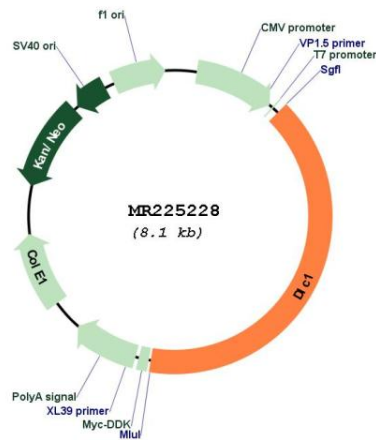
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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 Size:** 6184 bp  
**RefSeq ORF:** 3279 bp  
**Locus ID:** 50768  
**UniProt ID:** [Q9R0Z9](#)  
**Cytogenetics:** 8 23.05 cM  
**MW:** 123.3 kDa

**Gene Summary:** Functions as a GTPase-activating protein for the small GTPases RHOA, RHOB, RHOC and CDC42, terminating their downstream signaling. This induces morphological changes and detachment through cytoskeletal reorganization, playing a critical role in biological processes such as cell migration and proliferation. Also functions in vivo as an activator of the phospholipase PLCD1. Active DLC1 increases cell migration velocity but reduces directionality (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR225228