

Product datasheet for RC218311

DMC1 (NM_007068) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DMC1 (NM_007068) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DMC1
Synonyms:	dj199H16.1; DMC1H; LIM15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218311 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGGAGGATCAAGTTGTGGCGGAAGAACCAGGATCCAAGATGAAGAGGAATCTTTGTTTCAAGATA
TTGACCTGTTACAGAAACATGGAATTAACGTGGCTGACATTAAGAACTGAAATCAGTAGGAATCTGTAC
CATCAAAGGTATACAGATGACAACAAGAAGAGCTCTATGCAATGTCAAAGGACTCTCAGAAGCCAAAGTA
GACAAGATTAAGAGGCAGCGAACAATAATTGAACCAGGATTCTTGACTGCATTTGAGTATAGTGAAA
AGAGGAAAATGGTTTTCCATATACCACGGGAGCCAGGAATTTGATAAGTTACTAGGAGGTGGAATTGA
AAGTATGGCAATTACAGAAGCTTTTGGAGAATTCGTAAGTGGAAAAACCCAGCTTTCTCATACCCTCTGT
GTGACAGCTCAACTTCCAGGAGCTGGTGGCTACCCAGGAGGAAAGATTATCTTCATTGATACAGAAAATA
CTTTCCGTCAGATCGCCTTAGGGACATTGCTGATCGCTTAAATGTAGACCATGATGCAGTACTGGACAA
CGTACTTTATGCACGTGCATATACTAGTGAACATCAGATGGAGCTACTTGATTATGTAGCAGCAAAGTTC
CATGAAGAAGCTGGCATCTTCAAGCTATTGATTATCGATTCAATAATGGCACTTTTTCGAGTGGATTTCA
GTGGCCGTGGGGAGTTGGCCGAACGGCAGCAAAAATTGGCCAGATGTTGTCACGACTCCAAAAATCTC
AGAAGAATATAACGTGGCTGTTTTGTGACCAATCAAATGACTGCCGATCCAGGAGCAACTATGACCTTT
CAGGCAGATCCCAAAAACCCATTGGGGACACATTCTGGCTCATGCTTCAACAACAAGAATAAGCTTGC
GAAAGGGAAGAGGAGAGCTCAGAATTGCCAAGATTTATGACAGTCTGAGATGCCTGAAAATGAAGCCAC
CTTCGAATAACTGCTGGAGGAATTGGGGATGCCAAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC218311 protein sequence
Red=Cloning site Green=Tags(s)

MKEDQVVAEEPGFQDEEESLFQDIDLLQKHGINVADIKKLKSVGICTIKGIQMTTRRALCNVGLSEAKV
DKIKEAANKLIEPGFLTAFEYSEKRKMVFHITTSQEFDKLLGGGIESMAITEAFGEFRTGKTQLSHTLC
VTAQLPGAGGYPGGKIIFIDTENTFRPDLRDIADRFNVHDHDAVLDNVL YARAYTSEHQMELLDYVAAKF
HEEAGIFKLLIIDSIMALFRVDFSGRGELAERQKLAQML SRLQKISEEYNVAVFVTNQMTADPGATMTF
QADPKKPIGGHILAHASTTRISLRKGRGELRIAKIYDSEMPENEATFAITAGGIGDAKE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6441_h05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_007068

ORF Size: 1020 bp

OTI Disclaimer: 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_007068.4](#)

RefSeq Size: 2281 bp

RefSeq ORF: 1023 bp

Locus ID: 11144

UniProt ID: [Q14565](#)

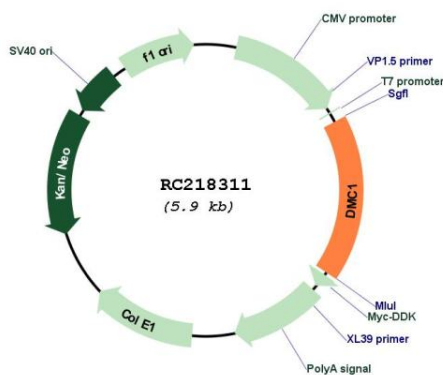
Cytogenetics: 22q13.1

Protein Families: Druggable Genome

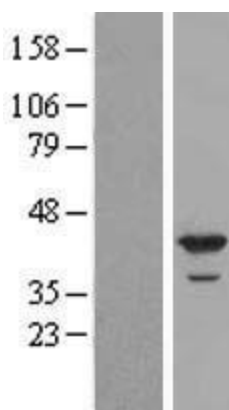
MW: 37.7 kDa

Gene Summary: This gene encodes a member of the superfamily of recombinases (also called DNA strand-exchange proteins). Recombinases are important for repairing double-strand DNA breaks during mitosis and meiosis. This protein, which is evolutionarily conserved, is reported to be essential for meiotic homologous recombination and may thus play an important role in generating diversity of genetic information. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2013]

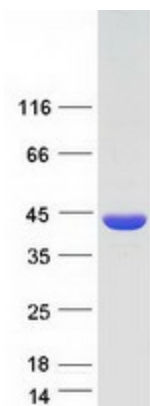
Product images:



Circular map for RC218311



Western blot validation of overexpression lysate (Cat# [LY416201]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218311 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DMC1 protein (Cat# [TP318311]). The protein was produced from HEK293T cells transfected with DMC1 cDNA clone (Cat# RC218311) using MegaTran 2.0 (Cat# [TT210002]).