

Product datasheet for **RC203370**

DEM1 (EXO5) (NM_022774) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DEM1 (EXO5) (NM_022774) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DEM1
Synonyms:	C1orf176; DEM1; Exo V; hExo5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203370 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGGCAGAGACAAGAGAAGAGGAGACAGTGTGACGAGAAGCCTCAGGGTTCTCAGACTTGAGTGACTCAG
 AGTTCCTGGAGTTTCTGGACCTAGAAGATGCCCAAGAGTCAAAGGCTTTAGTTAACATGCCTGGCCCATC
 TTCTGAATCCCTTGGGAAGGATGACAAACCCATAAGCTTACAAAAGTGGAAAAGAGGATTGGATATATTA
 TCACCCATGGAGAGATTCCACCTTAAATATTTATATGTCAGTACCTGGCTACTCAGAACTGGTGTGAAC
 TGCAAACAGCATATGGGAAGGAGCTTCTGGTTTCTTGGCACCTGAGAAGGCAGCTGTGTTGGACACTGG
 TGCCAGCATACACCTAGCTAGAGAACTAGAACTTCATGATCTTGTGACTGTCCAGTCACCACTAAAGAA
 GATGCTTGGGCAATTAAGTTTCTGAACATACTTTTGTGATTCTACCTGCAGTCAGAAGGGCACATCA
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 AGCCAAGGGGGAAGTGGAGCTGGCGGAAGTCAAGACACGAGGCGCCCTATGCTCCCTCTGGAAGCTCAG
 AAGAAGAAAGACTGTTTTCAAGTCAGCCTATACAAATATATCTTTGATGCCATGGTACAAGGAAAAGTGA
 CCCCTGCTAGCCTAATCCACCACACAAAGTTGTGTCTAGAAAAGCCACTGGGGCCATCAGTGCTGAGGCA
 TGCCCAGCAGGGAGGCTTCTCTGTGAAGTCTTTGGGTGACCTCATGGAAGTGTCTTCTGTCTCTAACA
 CTGTGACACCTCCAGTTATTGATATCTTGAAGATTGAGTATATCCCAAGAGACTGCCACTGTGCTGG
 GTACTGAGATTGTAGCCTTCAAAGAGAAGGAGGTGAGAGCCAAGGTGCAGCATTATATGGCCTACTGGAT
 GGGCCACCGAGAGCCCCAGGGAGTTGACGTGGAGGAGGCTTGAAGTGCCGGACGTGTACCTATGCAGAG
 ATTTGTGAGTGGAGAAAGGGCAGTGGAGTGCTCAGCTCTACACTGGCGCCCCAAGTCAAAAAGCCAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC203370 protein sequence
Red=Cloning site Green=Tags(s)

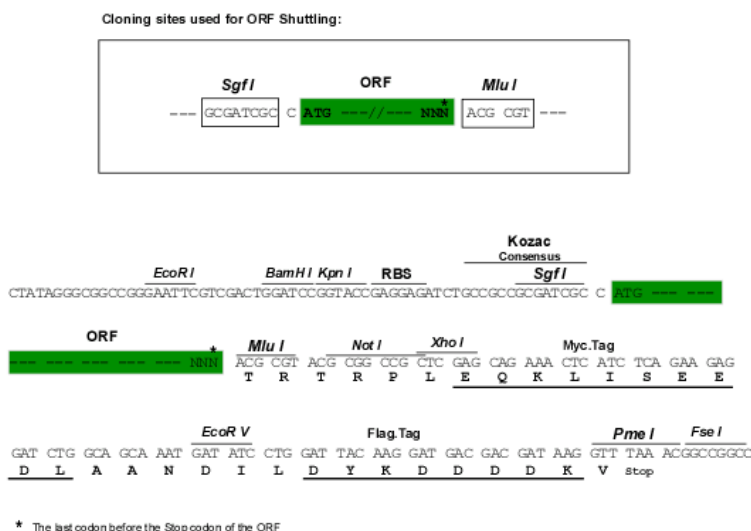
MAETREEETVSAEASGFSDLSDSEFLEFLDLEDAQESKALVNMPGPSSSELGKDDKPISLQNWKRGDLIL
SPMERFHLKYLVTDLATQNWCELQTAYGKELPGFLAPEKAVALDGTGASIHARELELHDLVTVPVTTKE
DAWA1KFLNILLIPTLQSEGHTRFPVFGVEGVLLVGVIDELHYTAKGELELAELKTRRRPMLPLEAQ
KKKDCFCQVSLYKYIFDAMVQGGVTPASLIHHTKLCLEKPLGPSVLRAHQGGFVSKSLGDMELVFLSLT
LSDLVIDILKIEYIHQETATVLTGEIVAFKEKEVRKVVQHYMAWYMGHREPQGVDEEAWKCRCTCYAD
ICEWRKSGSVL SSTLAPOVKAKK

TRTRPLEOKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6424_g08.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM 022774

ORF Size: 1119 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_022774.2](#)

RefSeq Size: 2217 bp

RefSeq ORF: 1122 bp

Locus ID: 64789

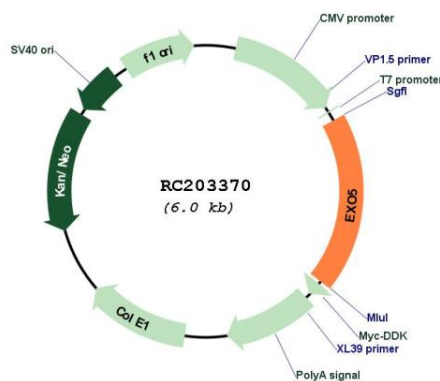
UniProt ID: [Q9H790](#)

Cytogenetics: 1p34.2

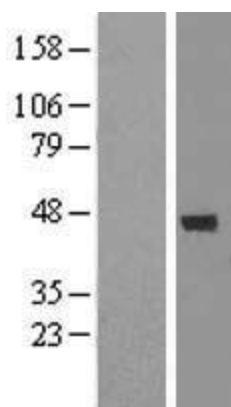
MW: 41.9 kDa

Gene Summary: The protein encoded by this gene is a single-stranded DNA (ssDNA)-specific exonuclease that can slide along the DNA before cutting it. However, human replication protein A binds ssDNA and restricts sliding of the encoded protein, providing a 5'-directionality to the enzyme. This protein localizes to nuclear repair loci after DNA damage. [provided by RefSeq, Nov 2016]

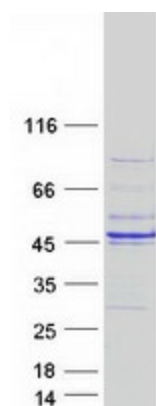
Product images:



Circular map for RC203370



Western blot validation of overexpression lysate (Cat# [LY411564]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203370 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EXO5 protein (Cat# [TP303370]). The protein was produced from HEK293T cells transfected with EXO5 cDNA clone (Cat# RC203370) using MegaTran 2.0 (Cat# [TT210002]).