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Product datasheet for MR210902

Exo1 (NM_012012) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Exo1 (NM_012012) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Exo1
Synonyms:	5730442G03Rik; Msa
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR210902 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGATTCAAGGGTTACTTCAGTTCATCCAAGAAGCTTCTGAACCTGTCAACGTGAAGAAGTACAAAG
GACAGGCAGTGGCTGTGGATACCTACTGTTGGCTTCACAAAGGGGCTATTGCTTGTGCTGAAAAGCTAGC
CAAAGGGGAACCTACAGATAGGTATGTAGGATTTTGTATGAAGTTTGTTAATATGCTGCTGTCTTATGGG
GTCAAGCCGATTCTCATATTTGACGGATGTACTCTACCTTCTAAAAAGGAAGTGGAGCGGTCTCGAAGAG
AGAGACGACAAAGCAACCTTCTTAAAGGGAAGCAGCTTCTTCGAGAGGGCAAAGTGTCAGAAGCCCGAGA
CTGCTTCGCTCGCTCTATCAACATCACGCACGCCATGGCCCACAAAGTAATAAAAGCTGCTCGGGCCCTA
GGAGTGGATTGCCTCGTGGCTCCGTATGAAGCTGATGCTCAGTTGGCCTACCTTAACAAGGCTGGCATCG
TGCAGGCTGTCATCACAGAGGACTCTGACCTCCTCGCATTTGGCTGTAAGAAGGTGATTTTAAAAATGGA
TCAGTTTGGAAATGGACTGGAAGTGGACCAGGCACGGCTAGGCATGTGCAAGCAGCTTGGGGATGTATTC
ACGGAGGAGAAGTTCCGGTACATGTGCATTCTGTCCGGCTGTGACTACCTCGCCTCCCTTCGTGGGATCG
GCTTAGCCAAGGCCTGCAAAGTGCTGAGACTGGCCAATAACCCCGATATCGTGAAGGTTATCAAGAAAAT
TGGGCATTATCTCAGGATGAATATAACGGTGCCCGAGGATTACATCACAGGATTTATTCGTGCCAACAAT
ACTTTCCTCTACCAGCTCGTGTTCGACCCCATCCAAAGGAAGCTGGTCCCTCTGAATGCCTACGGAGATG
ACGTTAATCCCGAAACACTGACTTACGCTGGGCAGTACGTCGGTGACTCTGTAGCTCTTCAGATCGCCCT
TGGAAATAGAGATGTAAATACTTTTGAACAGATTGATGACTACAGTCCAGACACCATGCCAGCCCACTCA
AGAAGCCACAGCTGGAATGAGAAAGCAGGTCAGAAACCACCTGGTACCAACAGCATTTGGCACAAGAATT
ATTGTCCTAGACTTGAGGTGAACAGTGTCTCCCACGCTCCTCAACTGAAGGAAAAGCCAAGCACTTTGGG
CCTTAAACAAGTGATTAGTACTAAAGGGTTAAATCTTCCCAGGAAGTCTTGTGTGTTGAAAAGACCAAGA
AATGAAGCGCTGGCTGAAGATGACCTGTTGAGCCAGTATTCGTCAGTTTCAAAGAAGATCAAGGAAAATG
GCTGTGGGGATGGCACATCACCTAACTCTTCTAAAATGTCCAAGTCCTGCCCCGATTCTGGGACTGCTCA
CAAGACAGATGCACACACCCCGTCTAAGATGAGGAATAAATTTGCAACGTTCTTACAGAGGAGGAATGAA
GAAAGCGGTGCAGTCGTGGTTCCAGGGACCAGAAGCAGGTTTTTTTGCAGTTCTCAGGATTTTGACAATT
TCATACCAAAAAAAGAAAGCGGCCAGCCTCTAAATGAAACTGTGGCCACTGGCAAAGCCACCACCAGCCT
CCTCGGGGCACTGGACTGTCCAGACACGGAAGGCCACAAGCCGGTTGATGCAAATGGGACGCACAATCTG
AGCTCTCAGATTCCAGGCAATGCAGCTGTGTCTCCTGAGGATGAGGCTCAGTCCTCTGAGACCAGCAAAC
TCTTGGGGGCCATGTCCCCACCCAGTCTGGGGACACTAAGAAGCTGTTTCAGTTGGTCTGGCACTCTCAG
GGAATTTTCTCGAACTCCAAGTCCCTCAGCAAGCACTACATTGCAGCAGTTCCGGAGAAAGAGCGACCCC
CCTGCCTGTCTTCCTGAGGCCTCTGCCGTGGTCACTGACAGGTGCGACTCAAAGAGCGAGATGCTGGGTG
AGACGTCTCAGCCCTTGCACGAGCTGGGCTGCTCCTCGCGGTCTCAGGAAAGCATGGACTCCTCGTGCGG
CCTAAACACGTCGAGCCTGTCCCAGCCTTCCAGTAGGGATTCAGGTTCAGAGGAGTCGGATTGTAACAAT
AAGTCACTTGATAATCAAGGGGAACAGAACTCCAAGCAACACTTACCTCACTTTTCAAAGAAAGACGGAC
TTAGACGGAACAAGGTTCCTGGGCTCTGTAGGTCTAGTTCTATGGACTCTTTTTCTACAACCAAGATCAA
GCCCCTGGTGCCTGCCAGGGTCAGTGGCCTGAGCAAGAAGTCAGGAAGCATGCAGACGAGAAAACACCAT
GATGTGGAGAACAAGCCAGGCCTACAGACGAAGATCAGCGAGCTCTGGAAAAACTTTGGGTTTAAAAAAG
ATTCTGAAAAGCTTCCTTCTTGTAAGAAGCCCCTGTCTCCAGTCAAGGACAATATCCAACTCACTCCAGA
GACAGAAGATGAGATCTTTAACAAGCCCGAGTGTGTACGCGCTCAGAGAGCAATATTTCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

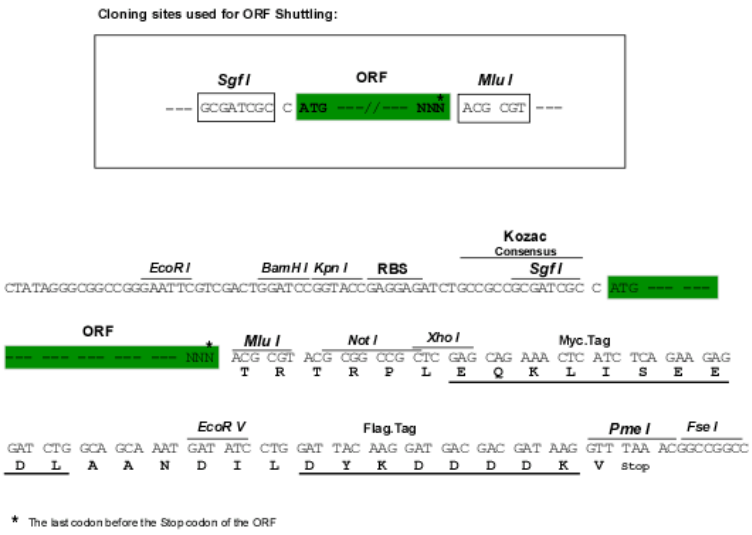
>MR210902 protein sequence
Red=Cloning site Green=Tags(s)

MGIQGLLQFIQEASEPVNVKKYKGQAVAVDTYCWLHKGAIACAEKLAKGEPTDRYVGFCMKFVNMLLSYG
VKPILIFDGCTLPSKKEVERSRRERRQSNLLKGKQLLREGKVSEARDCFARSINITHAMAHKVIKAARAL
GVDCLVAPYEADAQLAYLNKAGIVQAVITEDSDLLAFGCKKVILKMDQFGNGLEVDQARLGMCKQLGDVF
TEEKFRYMCILSGCDYLASLRGIGLAKACKVLRLANNPDIVKVIKKIGHYLRMNITVPEDYITGFIRANN
TFLYQLVFDPIQRKLVPLNAYGDDVNPETLTYAGQYVGDSVALQIALGNRDVNTFEQIDDYSPDTMPAHS
RSHSWNEKAGQKPPGTNSIWHKNYCPRLEVNSVSHAPQLKEKPSTLGLKQVISTKGLNLPRKSCVLKRPR
NEALAEDDLLSQYSSVSKKIKENGCGDGTSPNSSKMSKSCPDSGTAHKTDAHTPSKMRNKFATFLQRRNE
ESGAVVVPGTRSRFFCSSQDFDNFIPKKESGQPLNETVATGKATTSLLGALDCPDTEGHKPVDANGTHNL
SSQIPGNAAVSPEDEAQSSETSKLLGAMSPPSLGTLRSCFSWSGTLREFSRTPSPSASTTLQQFRRKSDP
PACLPEASAVVTDRCDSKSEMLGETSQPLHELGCSSRSQESMDSSCGLNTSSLSQPSSRDSGSEESDCNN
KSLDNQGEQNSKQHLPHFSKKDGLRRNKVPGLCRSSSMDSFSTTKIKPLVPARVSGLSKKSGSMQTRKHH
DVENKPGLQTKISELWKNFGFKKDSEKLPSCKKPLSPVKDNIQLTPETEDEIFNKPECVRAQRAIFH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012012

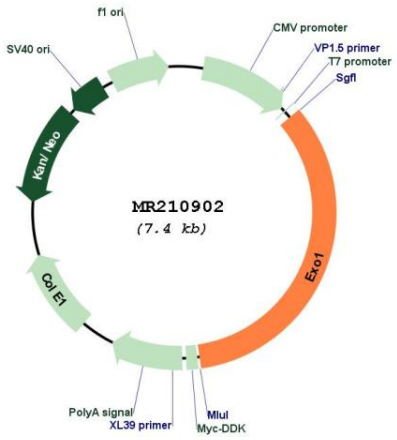
ORF Size: 2514 bp

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_012012.4
RefSeq Size:	5506 bp
RefSeq ORF:	2514 bp
Locus ID:	26909
UniProt ID:	Q9QZ11
Cytogenetics:	1 81.9 cM
MW:	92 kDa
Gene Summary:	5'->3' double-stranded DNA exonuclease which may also possess a cryptic 3'->5' double-stranded DNA exonuclease activity. Functions in DNA mismatch repair (MMR) to excise mismatch-containing DNA tracts directed by strand breaks located either 5' or 3' to the mismatch. Also exhibits endonuclease activity against 5'-overhanging flap structures similar to those generated by displacement synthesis when DNA polymerase encounters the 5'-end of a downstream Okazaki fragment. Required for somatic hypermutation (SHM) and class switch recombination (CSR) of immunoglobulin genes. Essential for male and female meiosis. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210902