

Product datasheet for **RC214294**

Exonuclease 1 (EXO1) (NM_006027) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Exonuclease 1 (EXO1) (NM_006027) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Exonuclease 1
Synonyms:	HEX1; hExo1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214294 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGATACAGGGATTGCTACAATTTATCAAAGAAGCTTCAGAACCATCCATGTGAGGAAGTATAAAG
 GGCAGGTAGTAGCTGTGGATACATATTGCTGGCTTCACAAAGGAGCTATTGCTTGTGCTGAAAACTAGC
 CAAAGGTGAACCTACTGATAGGTATGTAGGATTTGTATGAAATTTGTAATATGTTACTATCTCATGGG
 ATCAAGCCTATTCTCGTATTGATGGATGACTTTACCTTCTAAAAAGGAAGTAGAGAGATCTAGAAGAG
 AAAGACGACAAGCCAATCTTCTAAGGGAAAGCAACTTCTCGTGAGGGGAAAGTCTCGGAAGCTCGAGA
 GTGTTTACCCGGTCTATCAATATCACACATGCCATGGCCACAAAGTAATTAAGCTGCCCGTCTCAG
 GGGGTAGATTGCCTCGTGGCTCCCTATGAAGCTGATGCGCAGTTGGCCTATCTTAACAAAGCGGAATTG
 TGCAAGCCATAATTACAGAGGACTCGGATCTCCTAGCTTTGGCTGTAAAAAGGTAATTTAAAGATGGA
 CCAGTTTGAAAATGGACTTGAAATTGATCAAGCTCGGCTAGGAATGTGCAGACAGCTTGGGGATGTATTC
 ACGGAAGAGAAGTTTCGTTACATGTGTATTCTTTCAAGTTGTGACTACCTGTCATCACTCGTGGGATTG
 GATTAGCAAAGGCATGCAAAGTCTAAGACTAGCCAATAATCCAGATATAGTAAAGGTTATCAAGAAAAT
 TGGACATTATCTCAAGATGAATATCACGGTACCAGAGGATTACATCAACGGGTTTATTCGGGCCAACAAAT
 ACCTTCTCTATCAGCTAGTTTTGATCCCATCAAAGGAAACTTATTCCTCTGAACGCCTATGAAGATG
 ATGTTGATCCTGAAACACTAAGCTACGCTGGGCAATATGTTGATGATTCCATAGCTTCAAATAGCACT
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 TCAAGAAGTCATAGTTGGGATGACAAAACATGTCAAAGTCAGCTAATGTTAGCAGCATTGGCATAGGA
 ATTAAGTCTCCAGACCAGAGTCGGTACTGTTTCAGATGCCCAACAATTGAAGGAAAATCCAAGTACTGT
 GGGAGTGAACGAGTGATTAGTACTAAAGGGTTAAATCTCCAAGGAAATCATCCATTGTGAAAAGACCA
 AGAAGTGCAGAGCTGTCAGAAGATGACCTGTTGAGTCAGTATTCTTTTCATTTACGAAGAGACCAAGA
 AAAATAGCTCTGAAGGCAATAAATCATTGAGCTTTTCTGAAGTGTGTGCCTGACCTGGTAAATGGACC
 TACTAACAAAAGAGTGTAAAGCACTCCACCTAGGACGAGAAAATAAATTTGCAACATTTTTACAAAGGAAA
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 ACTGTGTATCAAACAAAGTGAGCATCCAGCCTCTGGATGAACTGCTGTCACAGATAAAGAGAACAATCT
 GCATGAATCAGAGTATGGAGACCAAGAAGGCAAGAGACTGGTTGACACAGATGTAGCACGTAATTCAGT
 GATGACATTCCGAATAATCATATTCAGGTGATCATATTCAGACAAGGCAACAGTGTTCACAGATGAAG
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 TTGTTTTAGTTGGTCTGGAGTCTGGAGATTTTCAAGAACGCCGAGCCCTCTCCAAGCACAGCATTG
 CAGCAGTCCGAAGAAAGAGCGATTCCCCACCTCTTTGCCTGAGAATAATATGTCTGATGTGTCGAGT
 TAAAGAGCGAGGAGTCCAGTGCAGATGAGTCTCATCCCTACGAGAAGGGGCATGTTCTTCCAGTCCCA
 GGAAAGTGGAGAATTCTCACTGCAGAGTCAAATGCATCAAAGCTTTCTCAGTGTCTAGTAAGGACTCT
 GATTCCAGAGGAATCTGATTGCAATTAAGTACTTGACAGTCAAAGTGACCAGACCTCCAAGCTATGTT
 TATCTCATTTCTCAAAAAAGACACACCTCTAAGGAACAAGGTTCTGGGCTATAAAGTCCAGTTCTGC
 AGACTCTTTTCTACAACCAAGATCAAACCTCTAGGACCTGCCAGAGCCAGTGGGCTGAGCAAGAAGCCG
 GCAAGCATCCAGAAGAGAAAGCATATAATGCCGAGAACAAGCCGGGTTACAGATCAAACCTCAATGAGC
 TCTGAAAAAATTTGGATTTAAAAAAGATTCTGAAAAGCTTCTCCTTGTAAAGAAACCCCTGTCCCCAGT
 CAGAGATAACATCCAACCTAACTCCAGAAGCGGAAGAGGATATATTTAACAACCTGAATGTGGCCGTGT
 CAAAGAGCAATATTCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214294 protein sequence
 Red=Cloning site Green=Tags(s)

MGIQGLLQFIKEASEPIHVRKYKQVVAVDTYCWLHKGAIACAELKAKGEPTDRYVGFCKMFVNMLLSHG
 IKPILVFDGCTLPSKKEVERSRERRRQANLLKGGKQLLREGKVSEARECFTRSINITAMAHKVIKAARSQ
 GVDCLVAPYEADAQLAYLNKAGIVQAIITEDSDLLAFGCKKVIKMDQFGNGLEIDQARLGMCRQLGDVF
 TEEKFRYMCILSGCDYLSLRLGIGLAKACKVLRANNDIVKVIKIGHYLMNITVPEDYINGFIRANN
 TFLYQLVFDPIKRKLIPLNAYEDDVPETLSYAGQYVDDSIALQIALGNKDINTFEQIDDYNPDTAMPAH
 SRSHSWDDKTCQKSANVSSIWHRNYSRPRSESGTVSDAPQLKENPSTVGVVERVISTKGLNLRKSSIVKRP
 RSAELSEDDLQSYLSFTKTKKNSSEGKSLSFSEFVVDLVNGPTNKKSVSTPPRTRNKFATFLQRK
 NEESGAVVPGTRSRFFCSDSDTDCVSNKYSIQPLDEAVTDKENNLHESEYGDQEGKRLVDTDVARNSS
 DDIPNNHIPGDHDPKATVFTDEESYSFESSKFTRTISPPTLGLRSCFSWSGGLGDFSRTPSPSPSTAL
 QQFRKSDSPTSLPENMSDVSQKSESSDDESHPLREGACSSQSQESGEFSLQSSNASKLSQCSSKDS
 DSEESDCNIKLLDSQSDQTSKLCLSHFSSKDTPLRNKVPGLYKSSADSLSTTKIKPLGPARGSLSKKP
 ASIQRKHHNAENKPLQIKLNELWKNFGFKDSEKLPCKKPLSPVRDNIQLTPEAEEDIFNKPECGRV
 QRAIFQ

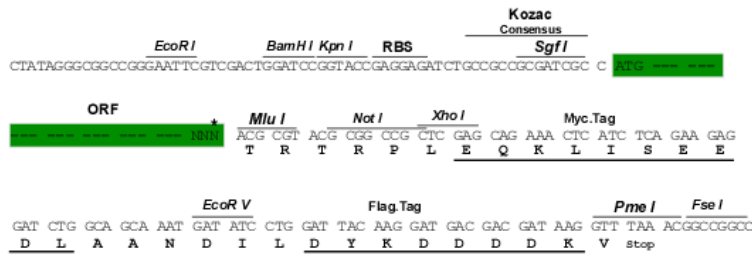
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6712_d05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

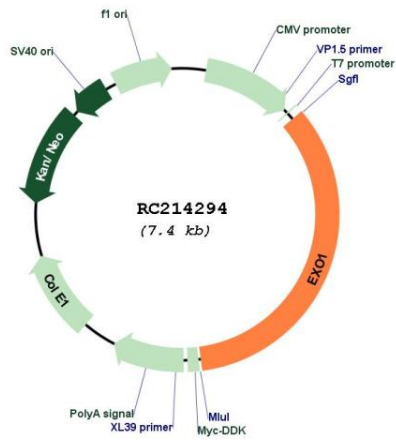
Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_006027
ORF Size:	2538 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:	<ol style="list-style-type: none">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_006027.3 , NP_006018.3
RefSeq Size:	3210 bp
RefSeq ORF:	2541 bp
Locus ID:	9156
UniProt ID:	Q9UQ84
Cytogenetics:	1q43
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Mismatch repair
MW:	94 kDa
Gene Summary:	This gene encodes a protein with 5' to 3' exonuclease activity as well as an RNase H activity. It is similar to the <i>Saccharomyces cerevisiae</i> protein Exo1 which interacts with Msh2 and which is involved in mismatch repair and recombination. Alternative splicing of this gene results in three transcript variants encoding two different isoforms. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC214294