

Product datasheet for **RC220201**

Exonuclease 1 (EXO1) (NM_003686) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Exonuclease 1 (EXO1) (NM_003686) 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:

>RC220201 representing NM_003686
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGATACAGGGATTGCTACAATTTATCAAAGAAGCTTCAGAACCATCCATGTGAGGAAGTATAAAG
 GGCAGGTAGTAGCTGTGGATACATATTGCTGGCTTCACAAAGGAGCTATTGCTTGTGCTGAAAACTAGC
 CAAAGGTGAACCTACTGATAGGTATGTAGGATTTTGTATGAAATTTGTAATATGTTACTATCTCATGGG
 ATCAAGCCTATTCTCGTATTGATGGATGACTTTACCTTCTAAAAAGGAAGTAGAGAGATCTAGAAGAG
 AAAGACGACAAGCCAATCTTCTAAGGGAAAGCAACTTCTCGTGAGGGGAAAGTCTCGGAAGCTCGAGA
 GTGTTTACCCCGTCTATCAATATCACACATGCCATGGCCACAAAGTAATTAAGCTGCCCGTCTCAG
 GGGGTAGATTGCCTCGTGGCTCCCTATGAAGCTGATGCGCAGTTGGCCTATCTTAACAAAGCGGAATTG
 TGCAAGCCATAATTACAGAGGACTCGGATCTCCTAGCTTTGGCTGTAAAAAGGTATTTTAAAGATGGA
 CCAGTTTGGAAATGGACTTGAAATTGATCAAGCTCGGCTAGGAATGTGCAGACAGCTTGGGGATGTATTC
 ACGGAAGAGAAGTTTCGTTACATGTGATTCTTTCAAGTTGTGACTACCTGTCATCACTCGTGGGATTG
 GATTAGCAAAGGCATGCAAAGTCTAAGACTAGCCAATAATCCAGATATAGTAAAGGTTATCAAGAAAAAT
 TGGACATTATCTCAAGATGAATATCACGGTACCAGAGGATTACATCAACGGGTTTATTCGGGCCAACAAAT
 ACCTTCTCTATCAGCTAGTTTTGATCCCATCAAAGGAAACTTATTCCTCTGAACGCCTATGAAGATG
 ATGTTGATCCTGAAACACTAAGCTACGCTGGGCAATATGTTGATGATTCCATAGCTTCAAATAGCACT
 TGGAAATAAGATATAAATACTTTTGAACAGATCGATGACTACAATCCAGACACTGCTATGCCTGCCCAT
 TCAAGAAGTCATAGTTGGGATGACAAAACATGTCAAAGTCAGCTAATGTTAGCAGCATTGGCATAGGA
 ATTACTCTCCAGACCAGAGTCGGTACTGTTTCAGATGCCCAACAATTGAAGGAAAAATCCAAGTACTGT
 GGGAGTGGAAACGAGTGATTAGTACTAAAGGGTTAAATCTCCAAGGAAATCATCCATTGTGAAAAGACCA
 AGAAGTGCAGAGCTGTCAGAAGATGACCTGTTGAGTCAGTATTCTCTTTCATTTACGAAGAGACCAAGA
 AAAATAGCTCTGAAGGCAATAAATCATTGAGCTTTTCTGAAGTGTGTGCTGACCTGGTAAATGGACC
 TACTAACAAAAGAGTGTAAAGCACTCCACCTAGGACGAGAAATAAATTTGCAACATTTTTACAAAGGAAA
 AATGAAGAAAGTGGTGCAGTTGTGGTCCAGGGACCAGAAGCAGGTTTTTTTTGCAGTTCAGATTCTACTG
 ACTGTGTATCAAACAAAGTGAGCATCCAGCCTCTGGATGAACTGCTGTCACAGATAAAGAGAACAATCT
 GCATGAATCAGAGTATGGAGACCAAGAAGCAAGAGACTGGTTGACACAGATGTAGCACGTAATTCAGT
 GATGACATTCCGAATAATCATATTCAGGTGATCATATTCAGACAAGGCAACAGTGTTCACAGATGAAG
 AGTCTACTCTTTTGGAGCAGCAAAATTTACAAGGACATTTCCACCCCACTTTGGGAACACTAAGAAG
 TTGTTTTAGTTGGTCTGGAGTCTGGAGATTTTTCAAGAACGCCGAGCCCTCTCCAAGCACAGCATTG
 CAGCAGTCCGAAGAAAGAGCGATTCCCCACCTCTTTGCCTGAGAATAATATGTCTGATGTGTCGAGT
 TAAAGAGCGAGGAGTCCAGTACGATGAGTCTCATCCCTACGAGAAGAGGCATGTTCTTACAGTCCCA
 GGAAAGTGGAGAATTCTCACTGCAGAGTTCAAATGCATCAAAGCTTTCTCAGTGTCTAGTAAGGACTCT
 GATTACAGAGGAATCTGATTGCAATTAAGTACTTGACAGTCAAAGTGACCAGACCTCCAAGCTACGTT
 TATCTCATTTCTCAAAAAAGACACACCTCTAAGGAACAAGGTTCTGGGCTATATAAGTCCAGTTCTGC
 AGACTCTTTTCTACAACCAAGATCAAACCTCTAGGACCTGCCAGAGCCAGTGGGCTGAGCAAGAAGCCG
 GCAAGCATCCAGAAGAGAAAGCATATAATGCCGAGAACAAGCCGGGTTACAGATCAAACCTCAATGAGC
 TCTGAAAAAATTTGATTAAAAAATTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220201 representing NM_003686
 Red=Cloning site Green=Tags(s)

MGIQGLLQFIKEASEPIHVRKYKGQVAVDTCWLHKGAIACAELKAKGEPTDRYVGFCKMFVNMLLSHG
 IKPILVFDGCTLPSKKEVERSRERRRQANLLKQKQLLREGKVSEARECFTRSINITHAMAHKVIKAARSQ
 GVDCLVAPYEADAQLAYLNKAGIVQAIITEDSDLLAFGCKKVILKMDQFGNGLEIDQARLGMCRQLGDVF
 TEEKFRYMCILSGCDYLSLRGIGLAKACKVLRANNDIVKVIKIGHYLMNITVPEDYINGFIRANN
 TFLYQLVFDPIKRKLIPLNAYEDDVPETLSYAGQYVDDSIALQIALGNKDINTFEQIDDYNDPTAMPAH
 SRSHSWDDKTCQKSANVSSIWHRNYSRPESGTVSDAPQLKENPSTVGVERVISTKGLNLPKSSIVKRP
 RSAELSEDDLSSQYLSFTKTKKNSSEGKSLSFSEVFPDLVNGPTNKKSVSTPPRTRNKFATFLQRK
 NEESGAVVPGTRSRFFCSDSTDCVSNKVSIPQLDETAVTDKENNLHESEYGDQEGKRLVDTDVARNSS
 DDIPNNHIPGDHDPKATVFTDEESYSFESSKFTRTISPPTLGLRSCFSWSGGLGDFSRTPSPSPSTAL
 QQFRKSDSPTSLPENMSDVSQKSEESSDDESHPLREEACSSQSQESGEFSLQSSNASKLSQCSSKDS
 DSEESDCNIKLLDSQSDQTSKLRSLSHFSKKDTPLRNKVPGLYKSSADSLSTTKIKPLGPASGLSKKP
 ASIQKRKHHNAENKPLQIKLNELWKNFGFKKF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_003686

ORF Size: 2409 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_003686.4](#), [NP_003677.4](#)

RefSeq Size: 3208 bp

RefSeq ORF: 2412 bp

Locus ID: 9156

UniProt ID: [Q9UQ84](#)

Cytogenetics: 1q43

Domains: HhH2, XPG_N, XPG_I

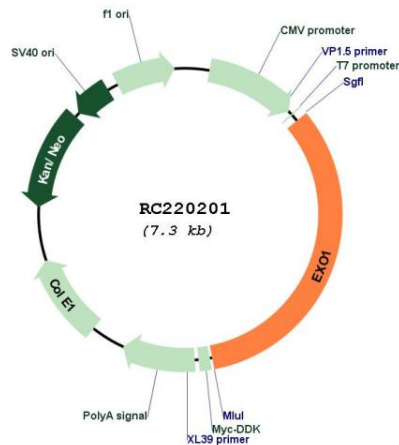
Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: Mismatch repair

MW: 89.2 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 *Saccharomyces cerevisiae* 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 RC220201