

## Product datasheet for RC209573

### DNase II (DNASE2) (NM\_001375) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNase II (DNASE2) (NM_001375) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DNase II
Synonyms:	DNASE2A; DNL; DNL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209573 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATCCCCTGCTGCTGGCAGCGCTGCTGTGCGTCCCCGCCGGGCCCTGACCTGCTACGGGGACTCCG  
GGCAGCCTGTAGACTGGTTCGTGGTCTACAAGCTGCCAGCTCTTAGAGGGTCCGGGGAGGCGCGCAGAG  
AGGGCTGCAGTACAAGTATCTGGACGAGAGCTCCGGAGGCTGGCGGGACGGCAGGGCACTCATCAACAGC  
CCGGAGGGGGCCGTGGCCGAAGCCTGCAGCCGCTGTACCGGAGCAACACCAGCCAGCTCGCCTTCTGTC  
TCTACAATGACCAACCGCCTCAACCCAGCAAGGCTCAGGACTCTCCATGCGTGGGCACACGAAGGGTGT  
CCTGCTCCTTGACCAGATGGGGCTTCTGGCTGGTCCACAGTGTACCTAACTTCCCTCCACCGGCCTCC  
TCTGCTGCATACAGCTGGCCTCATAGCGCCTGTACCTACGGGCAGACCCTGCTCTGTGTGCTTTTTCCCT  
TCGCTCAGTTCTCGAAGATGGGCAAGCAGCTGACCTACACCTACCCTGGGTCTATAACTACCAGCTGGA  
AGGGATCTTTGCCAGGAATCCCCGACTTGGAGAATGTGGTCAAGGGCCACCAGTTAGCCAAGAACC  
TGGAACAGCAGCATCACACTCACATCCCAGGCCGGGCTGTTTTCCAGAGCTTTGCCAAGTTCAGCAAAT  
TTGGAGATGACCTGTACTCCGGCTGGTTGGCAGCAGCCCTGGTACCAACCTGCAGGTCCAGTCTGGCA  
CAAACTGTAGGCATCCTGCCCTCTAACTGCTCGGATATCTGGCAGTCTGAATGTGAACCAGATAGCT  
TTCCCTGGACCAGCCGGCCCAAGCTTCAACAGCACAGAGGACCACTCAAATGGTGGCTGCCCAAAAG  
GGCCTTGACCTGCGTGGGTGACATGAATCGGAACAGGAGAGGAGCAACGGGGTGGGGGCACACTGTG  
TGCCAGCTGCCAGCCCTCTGAAAGCCTTCCAGCCGCTGGTGAAGAACTACCAGCCCTGTAAATGGCATG  
GCCAGGAAGCCAGCAGAGCTTATAAGATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC209573 protein sequence  
Red=Cloning site Green=Tags(s)

MIPLLLAALLCVPAGALTCYGDGSGQPVDWVYVYKLPALRGSGEAAQRGLQYKYLDESSGGWRDGRALINS  
 PEGAVGRSLQPL YRSNTSQLAFLLYNDQPPQPSKAQDSSMRGHTKGVLLLDHDGGFWLVHSVPNFPPPAS  
 SAAYSWPHSACTYGTLLCVSFPFAQFSKMGKQLTYTYPWVYNYQLEGIFAQEFPDLENVVKGHVVSQEP  
 WNSSITLTSQAGAVFQSF AKFSKFGDDL YSGWLAALGTNLQVQFVHKTVGILP SNCSDIWQVLNVNQIA  
 FPGPAGPSFNSTEDHSKWCVSPKGPWTCVGMNRRNQEGEEQRGGGTLCAQLPALWKAFQPLVKNYQPCNGM  
 ARKPSRAYKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6355\\_g03.zip](https://cdn.origene.com/chromatograms/mk6355_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001375

**ORF Size:** 1080 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\\_001375.3](#)

**RefSeq Size:** 2011 bp

**RefSeq ORF:** 1083 bp

**Locus ID:** 1777

**UniProt ID:** [O00115](#)

**Cytogenetics:** 19p13.13

**Domains:** DNase\_II

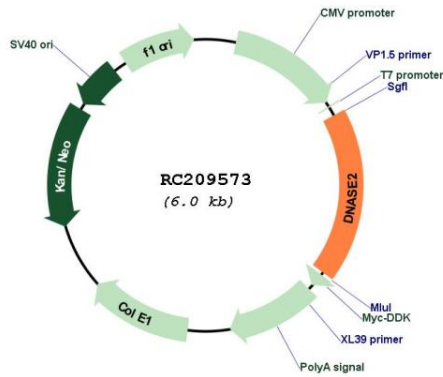
**Protein Families:** Druggable Genome

**Protein Pathways:** Lysosome

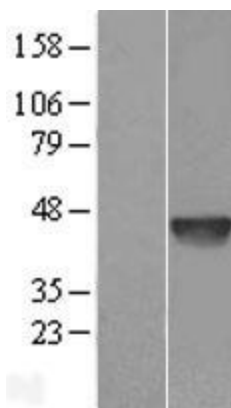
**MW:** 39.6 kDa

**Gene Summary:** This gene encodes a member of the DNase family. The protein, located in the lysosome, hydrolyzes DNA under acidic conditions and mediates the breakdown of DNA during erythropoiesis and apoptosis. Two codominant alleles have been characterized, DNASE2\*L (low activity) and DNASE2\*H (high activity), that differ at one nucleotide in the promoter region. The DNASE2\*H allele is represented in this record. [provided by RefSeq, Jul 2008]

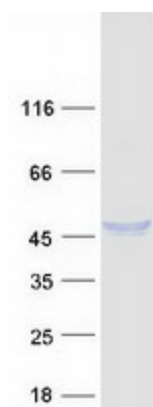
Product images:



Circular map for RC209573



Western blot validation of overexpression lysate (Cat# [LY419982]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209573 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DNASE2 protein (Cat# [TP309573]). The protein was produced from HEK293T cells transfected with DNASE2 cDNA clone (Cat# RC209573) using MegaTran 2.0 (Cat# [TT210002]).