

Product datasheet for MR203857

Dnase1 (NM_010061) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dnase1 (NM_010061) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dnase1
Synonyms:	A1788650; DNase1; Dnl1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203857 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGGTACACAGGGCTAATGGGAACACTGCTCACCTTGGTCAACCTGCTGCAGCTGGCTGGGACTCTGA
GAATTGCAGCCTTCAACATTCGGACTTTTGGGGAGACTAAGATGTCCAATGCTACCCTCTCTGTACTT
TGTGAAAATCCTGAGTCGCTATGACATCGCTGTTATCCAAGAGGTCAGAGACTCCCACCTGGTTGCTGTT
GGGAAGCTCCTGGATGAACCAATCGGGACAACTGACACCTACCGCTATGTAGTCAGTGAGCCGCTGG
GCCGTAAGCTACAAGGAACAGTACCTTTTTGTGTACAGGCCTGACCAGGTGTCTATTCTGGACAGCTA
TCAATATGATGATGGCTGTGAACCTGTGGAAATGACACCTTCAGCAGAGAGCCAGCCATTGTTAAGTTC
TTTTCCCATACTGAGGTCCAAGAATTTGCGATCGTGCCCTTGCATGCAGCCCAACAGAAGCTGTGA
GTGAGATCGACGCCCTCTACGATGTTTACCTAGATGTCTGGCAAAAGTGGGGCCTGGAGGACATCATGTT
CATGGGAGACTTCAATGCTGGCTGCAGCTACGTCACTTCTCCAGTGGTCCCTCCATTCCGCTTCGGACA
AGCCCCATCTCCAGTGGCTGATCCCTGACAGTGGGACACCACAGTCACATCAACACTGTGCTTATG
ACAGGATTGTGGTTGCTGGAGCTCTGCTCCAGGCTGCTGTTGTTCCCAACTCGGCTGTTCTTTTGATT
CCAAGCAGAATACAGACTTTCCAACCAGCTGGCTGAAGCCATCAGTGACCATTACCCAGTGGAGGTGACA
CTCAGAAAAATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR203857 protein sequence
Red=Cloning site Green=Tags(s)

MRYTGLMGTLTLVNLQLAGTLRIAFAFNIRTFGETKMSNATLSVYFVKILSRDYDIAVIQEVDRDLSHLVAV
 GKLLDELNRDKPDTYRYVVSEPLGRKSYKEQYLFVYRPDQVSILDSYQYDDGCEPCGNDTFSREPAIVKF
 FSPYTEVQEFQVPLHAAPTEAVSEIDALYDVYLDVWQKWGLDIMFMGDFNAGCSYVTSSQWSSIRLRT
 SPIFQWLIPDSADTTVTSTHCAYDRIVVAGALLQAAVVPNSAVPFDFAEYRLSNQLAEAISDHYPVEVT
 LRKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_010061

ORF Size: 855 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_010061.4](#), [NP_034191.2](#)

RefSeq Size: 1309 bp

RefSeq ORF: 855 bp

Locus ID: 13419

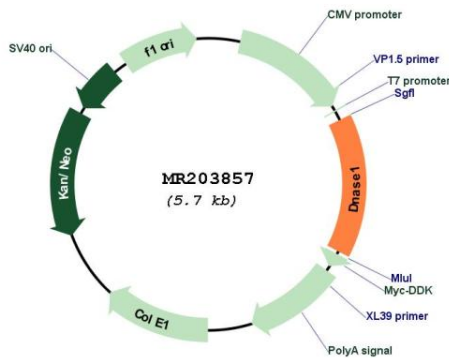
UniProt ID: [P49183](#)

Cytogenetics: 16 2.37 cM

MW: 32.1 kDa

Gene Summary: Serum endonuclease secreted into body fluids by a wide variety of exocrine and endocrine organs (PubMed:29191910). Expressed by non-hematopoietic tissues and preferentially cleaves protein-free DNA. Among other functions, seems to be involved in cell death by apoptosis. Binds specifically to G-actin and blocks actin polymerization (By similarity). Together with DNASE1L3, plays a key role in degrading neutrophil extracellular traps (NETs) (PubMed:29191910). NETs are mainly composed of DNA fibers and are released by neutrophils to bind pathogens during inflammation (PubMed:29191910). Degradation of intravascular NETs by DNASE1 and DNASE1L3 is required to prevent formation of clots that obstruct blood vessels and cause organ damage following inflammation (PubMed:29191910). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR203857