

Product datasheet for **RC200031**

MRPS7 (NM_015971) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPS7 (NM_015971) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPS7
Synonyms:	bMRP27a; COXPD34; MRP-S; MRP-S7; RP-S7; RPMS7; S7mt
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200031 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTTGCCCCGCAGTGAAGGTTGCCCGAGGATGGTCGGCCTGGCGTTGGGCGTGCGGCGGGCTGTCT
TGCAGCTTCCAGGGCTAACTCAGGTGAGATGGAGCCGCTATAGTCCTGAATTCAGGATCCCTTGATTGA
CAAGGAATATTATCGCAAGCCAGTGGAGGAGCTAACTGAGGAGGAGAAATATGTTCCGGAGCTCAAGAAG
ACTCAGCTCATCAAAGCTGCTCCAGCAGGAAAACAAGTTCTGTGTTTGAAGACCCAGTCATCAGTAAAT
TCACCAACATGATGATGATAGGAGGAAACAAAGTACTGGCCAGATCCCTCATGATTCAGACTCTGGAAGC
TGTGAAAAGGAAGCAGTTTGAAGAAGTACCATGCCGCTTCTGCAGAGGAACAGGCAACCATCGAACGCAAC
CCCTACACCATCTTCCATCAAGCACTGAAAACTGTGAGCCTATGATTGGGCTGGTACCCATCCTCAAGG
GAGGCCGTTTCTACCAGGTCCCTGTACCCTACCCGACCGCGTCGCCGCTTCTAGCCATGAAGTGGAT
GATCACTGAGTGCCGGGATAAAAAGCACCAGCGGACACTGATGCCGGAGAAGCTGTACACAAGCTGCTG
GAGGCTTTCATAAACAGGGCCCCGTGATCAAGAGGAAGCATGACTTGACAAGATGGCAGAGGCCAACCC
GTGCCCTGGCCCACTACCGCTGGTGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC200031 protein sequence
Red=Cloning site Green=Tags(s)

MVAPAVKVARGWSGLALGVRAVLQLPGLTQVRWSRYSPEFKDPLIDKEYYRKPVEELTEEEKYVRELKK
 TQLIKAAPAGKTSSVFEDPVISKFTNMMIIGGNKVLARSLMIQTLEAVKRKQFEKYHAASAEQATIERN
 PYTIFHQALKNCEPMIGLVPILKGRFYQVPVPLPDRRRRFLAMKWMITECRDKKHQRTLMPEKLSHLL
 EAFHNQGPVIKRRKHLHKMAEANRALAHYRWW

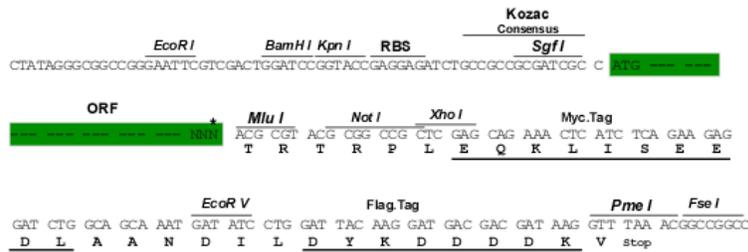
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6388_a02.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_015971

ORF Size: 726 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_015971.2](#), [NP_057055.1](#)

RefSeq Size: 1432 bp

RefSeq ORF: 729 bp

Locus ID: 51081

UniProt ID: [Q9Y2R9](#)

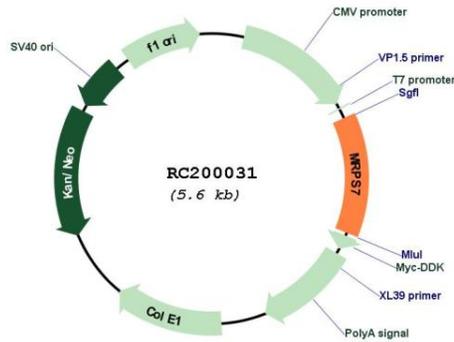
Cytogenetics: 17q25.1

Domains: Ribosomal_S7

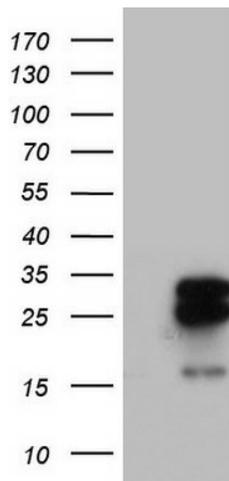
MW: 28.2 kDa

Gene Summary: Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in protein synthesis within the mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that the latter contain a 5S rRNA. Among different species, the proteins comprising the mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a 28S subunit protein. In the prokaryotic ribosome, the comparable protein is thought to play an essential role in organizing the 3' domain of the 16 S rRNA in the vicinity of the P- and A-sites. Pseudogenes corresponding to this gene are found on chromosomes 8p and 12p. [provided by RefSeq, Jul 2008]

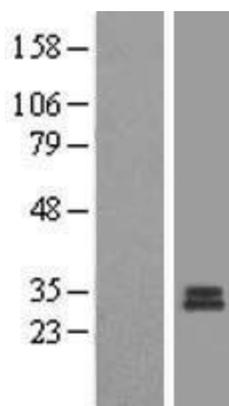
Product images:



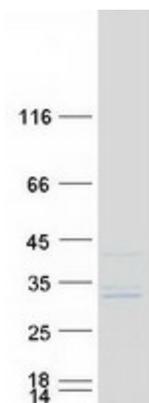
Circular map for RC200031



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MRPS7 (Cat# RC200031, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MRPS7(Cat# [TA803297]). Positive lysates [LY414276] (100ug) and [LC414276] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414276]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200031 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRPS7 protein (Cat# [TP300031]). The protein was produced from HEK293T cells transfected with MRPS7 cDNA clone (Cat# RC200031) using MegaTran 2.0 (Cat# [TT210002]).