

## Product datasheet for MC207469

### Rps3 (NM\_012052) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rps3 (NM_012052) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rps3
Synonyms:	D7Ert795e; Rs_3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC207469 representing NM_012052 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGTGCAGATTTCCAAGAAGAGGAAGTTGTAGCTGATGGCATCTCAAAGCTGAGCTGAATGAAT  
TTCTCACTCGGGAGCTGGCTGAAGATGGCTACTCTGGAGTTGAAGTCCGAGTTACACCAACCAGGACAGA  
AATCATTATTTTAGCCACCAGGACACAGAATGTTCTTGGGAGAAGGGTCGTCGGATCAGAGAGTTGACC  
GCAGTTGTCCAGAAGCGCTTTGGCTTCCCTGAAGGCAGCGTAGAGCTTTATGCAGAGAAAGTGGCCACAA  
GAGGTCTGTGTGCCATTGCCAGGCAGAGTCTCTACGCTACAACTCCTTGGAGGGCTTGCAGTTTGAAG  
GGCCTGCTATGGTGTGCTTCGGTTCATTATGGAGAGTGGGGCCAAGGGCTGCGAGGTTGTGGTGTCTGGG  
AAGCTCCGAGGACAGAGGGCCAAGTCCATGAAGTTTGTGGATGGTCTGATGATTACAGTGGAGACCCCTG  
TTAACTACTATGTCGACACAGCTGTGCGCCATGTGCTCCTCAGACAGGGTGTGCTGGGCATCAAAGTGAA  
GATCATGCTGCCCTGGGACCCAAGTGGTAAGATTGGTCCCAAGAAGCCTCTGCCTGATCATGTGAGCATC  
GTGGAACCTAAAGATGAAATCCTGCCCACGACCCCATCTCCGAACAGAAGGGTGGGAAGCCAGAGCCAC  
CAGCCATGCCCCAGCCAGTGCCTACAGCA**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_012052
Insert Size:	732 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_012052.2, NP_036182.1</u>
<b>RefSeq Size:</b>	1879 bp
<b>RefSeq ORF:</b>	732 bp
<b>Locus ID:</b>	27050
<b>UniProt ID:</b>	<u>P62908</u>
<b>Cytogenetics:</b>	7 54.07 cM

**Gene Summary:**

Involved in translation as a component of the 40S small ribosomal subunit (By similarity). Has endonuclease activity and plays a role in repair of damaged DNA (PubMed:7775413). Cleaves phosphodiester bonds of DNAs containing altered bases with broad specificity and cleaves supercoiled DNA more efficiently than relaxed DNA (By similarity). Displays high binding affinity for 7,8-dihydro-8-oxoguanine (8-oxoG), a common DNA lesion caused by reactive oxygen species (ROS) (By similarity). Has also been shown to bind with similar affinity to intact and damaged DNA (By similarity). Stimulates the N-glycosylase activity of the base excision protein OGG1 (By similarity). Enhances the uracil excision activity of UNG1 (By similarity). Also stimulates the cleavage of the phosphodiester backbone by APEX1 (By similarity). When located in the mitochondrion, reduces cellular ROS levels and mitochondrial DNA damage (By similarity). Has also been shown to negatively regulate DNA repair in cells exposed to hydrogen peroxide (By similarity). Plays a role in regulating transcription as part of the NF-kappa-B p65-p50 complex where it binds to the RELA/p65 subunit, enhances binding of the complex to DNA and promotes transcription of target genes (By similarity). Represses its own translation by binding to its cognate mRNA (By similarity). Binds to and protects TP53/p53 from MDM2-mediated ubiquitination (By similarity). Involved in spindle formation and chromosome movement during mitosis by regulating microtubule polymerization (By similarity). Involved in induction of apoptosis through its role in activation of CASP8 (PubMed:14988002). Induces neuronal apoptosis by interacting with the E2F1 transcription factor and acting synergistically with it to up-regulate pro-apoptotic proteins BCL2L1/BIM and HRK/Dp5 (By similarity). Interacts with TRADD following exposure to UV radiation and induces apoptosis by caspase-dependent JNK activation (By similarity).[UniProtKB/Swiss-Prot Function]