

## Product datasheet for **MC225644**

### Rd3 (NM\_001303132) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rd3 (NM\_001303132) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Rd3  
**Synonyms:** 3322402L07Rik; rd-3  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC225644 representing NM\_001303132  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGTCCCTCATCCCGTGGCTCCGGTGGAAACGACACCCCTCCCGGCTCTCGGCCCGACCCCGCCGAGA  
TGGTGCTGGAGACGCTCATGATGGAGCTGGCTGGCAGATGAGAGAGGTGGAGCGACAACAGAGGGAGCG  
TCGCAGCGCAGTCAGGAAGATCTGCACTGGTGTGGACTACAGCTGGTTGGCAAACACGCCAGGCCACC  
TATGACATCAGCCCTGGTTCAGGCAGCTGCTGGCTGAACGAGAGCCCGAGGTGCAGGAGGTGGCCGGCT  
GTTCCGCTCCGTGTTGCAGGAGGCCCTGGAGAAG**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001303132

**Insert Size:** 318 bp

**OTI Disclaimer:** 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).

**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.



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<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>RefSeq:</b>	<u>NM_001303132.1, NP_001290061.1</u>
<b>RefSeq Size:</b>	3857 bp
<b>RefSeq ORF:</b>	318 bp
<b>Locus ID:</b>	74023
<b>UniProt ID:</b>	<u>Q8BRE0</u>
<b>Cytogenetics:</b>	1 97.09 cM
<b>Gene Summary:</b>	<p>Plays a critical role in the regulation of enzymes involved in nucleotide cycle in photoreceptors (PubMed:21078983, PubMed:27471269). Inhibits the basal catalytic activity and the GCAP-stimulated activity of GUCY2E and GUCY2F, two retinal guanylyl cyclases involved in the production of cGMP in photoreceptors (PubMed:27471269). Involved in the transport of GUCY2E and GUCY2F to their target sites in the photoreceptor outer segment (PubMed:21078983). Up-regulates the activity of GUK1, a kinase that plays also an essential role for recycling GMP and indirectly, cGMP (By similarity). Plays an important role for the survival of rods and cones in the retina (PubMed:8486383, PubMed:17186464).</p> <p>[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) differs in the 5' UTR and uses an alternate splice site that results in a frameshift in the 3' coding region, compared to variant 1. The encoded isoform (2) has a distinct C-terminus and is shorter than isoform 1. Both variants 2 and 3 encode isoform 2.</p>