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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
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC225644 representing NM_001303132 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCCCTCATCCCGTGGCTCCGGTGGAACGACACCCCTCCCCGGCTCTCGGCCCGGACCCCGGCCGAGA TGGTGCTGGAGACGCTCATGATGGAGCTGGCTGGGCAGATGAGAGAGGTGGAGCGACAACAGAGGGAGCG TCGCAGCGCAGTCAGGAAGATCTGCACTGGTGTGGACTACAGCTGGTTGGCAAACACGCCCAGGCCCACC TATGACATCAGCCCTGGTTCAGGCAGCTGCTGGCTGAACGAGAGCCCGAGGTGCAGGAGGTGGCGCGGCT GTTCCGCTCCGTGTTGCAGGAGGCCCTGGAGAAGATGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT 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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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_001303132.1, NP_001290061.1
RefSeq Size:	3857 bp
RefSeq ORF:	318 bp
Locus ID:	74023
UniProt ID:	Q8BRE0
Cytogenetics:	1 97.09 cM
Gene Summary:	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). [UniProtKB/Swiss-Prot Function] 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.

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