

## Product datasheet for **MC217576**

### **Rpe65 (NM\_029987) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Rpe65 (NM_029987) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rpe65
Synonyms:	65kDa; A930029L06Rik; LCA2; Mord1; rd12; RP20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >MC217576 representing NM\_029987  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCTATCCAAATTGAACACCCTGCTGGTGGCTACAAGAACTATTTGAACTGTGGAGGAAGTCTCCT  
 CACCCTAACAGCTCATGTCACAGGCAGGATCCCTCTGGCTCACTGGCAGTCTCCTCCGATGTGGGCC  
 AGGGCTCTTTGAAGTTGGATCTGAGCCTTTCTATCACCTGTTTGTGGACAAGCCCTTTTGCACAAGTTT  
 GACTTCAAGGAGGGCCATGTCACATACCACAGAAGATTATCCGCACTGATGCTTATGTTGAGCAATGA  
 CTGAGAAGAGGATTGTCATAACAGAATTTGGCACCTGTGCTTTCCAGACCCCTGCAAGAATATATTTTC  
 CAGGTTTTTTTCTACTTTAAAGGAGTAGAGGTTACTGACAATGCCCTTGTAAATATCTACCCAGTGGGA  
 GAAGATTACTATGCATGCACAGAGACCACTTTATCACAAGATTAACCCAGAGACCTTGGAGACAATTA  
 AGCAGGTTGATCTTTGCAACTATATTTCTGTCAATGGTGGCCACTGCTCATCCACATATTGAAAGTATGG  
 AACAGTTTACAACATTGGGAATGCTTTGGAAAAATTTTACAGTTGCCTACAACATTATTAAGATCCCT  
 CCACTGAAAGCAGACAAGGAAGATCCAATAAACAAAGTCAGAAGTTGTTGTGCAGTCCCTGCAGTGATC  
 GTTTCAAGCCATCTTATGTACACAGTTTTGGTCTGACTCCCAACTATATCGTTTTTGGGAGACTCCAGT  
 CAAAATTAACCTTTTCAAGTTTCTTTCTCGTGGAGTCTTTGGGGAGCCAACTACATGGACTGTTTCGAG  
 TCCAATGAAAGCATGGGGTTTGGCTTCATGTTGCTGATAAAAAAAGAAGAAAATACTTCAATAACAAAT  
 ACAGGACTTCCCCTTTCAATCTCTTCCATCATATCAACTTATGAAGACAATGGATTTCTGATTGTGGA  
 TCTCTGTTGCTGGAAAGGTTTGAATTTGTTTATAATTACTTATATTTAGCCAATTTACGTGAGAATTGG  
 GAAGAAGTTAAAAGAAATGCTATGAAGGCTCCTCAGCCTGAAGTCAGGAGATATGTAATCTCTTTGACAA  
 TTGACAAGTTCGACACAGGCAGAAATTTAGTCACACTGCCCATACAACAGCCACAGCCACTCTGCGCAG  
 TGATGAGACCATATGGCTGGAACCTGAGGTTCTCTTTTCAGGGCCTCGTCAAGCCTTTGAATTTCCCTCAA  
 ATCAATTACCAGAAATTTGGAGGAAACCTTACTTATGCATACGGACTTGGGTTGAATCACTTTGTTT  
 CTGACAAGCTCTGTAAGATGAACGTCAAACTAAAGAAATCTGGATGTGGCAAGAGCCAGATTCTTACCC  
 ATCTGAACCCATCTTTGTTTCTCAACCAGATGCTCTGGAAGAAGATGATGGTGTGGTTCTGAGTGTGGT  
 GTGAGCCCTGGGGCAGGGCAAAGCCTGCATATCTCTGGTTCTGAATGCCAAAGACTTGAGTGAATTTG  
 CCAGGGCTGAAGTGGAGACTAATATCCCTGTGACCTTCCATGGACTGTTCAAAGATCC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_029987
- Insert Size:** 1602 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).
- 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\\_029987.2](#), [NP\\_084263.2](#)

**RefSeq Size:** 1862 bp

**RefSeq ORF:** 1602 bp

**Locus ID:** 19892

**UniProt ID:** [Q91ZQ5](#)

**Cytogenetics:** 3 82.52 cM

**Gene Summary:** Critical isomerohydrolase in the retinoid cycle involved in regeneration of 11-cis-retinal, the chromophore of rod and cone opsins. Catalyzes the cleavage and isomerization of all-trans-retinyl fatty acid esters to 11-cis-retinol which is further oxidized by 11-cis retinol dehydrogenase to 11-cis-retinal for use as visual chromophore (PubMed:15765048, PubMed:9843205, PubMed:23407971, PubMed:28500718). Essential for the production of 11-cis retinal for both rod and cone photoreceptors (PubMed:17251447). Also capable of catalyzing the isomerization of lutein to meso-zeaxanthin an eye-specific carotenoid. The soluble form binds vitamin A (all-trans-retinol), making it available for LRAT processing to all-trans-retinyl ester. The membrane form, palmitoylated by LRAT, binds all-trans-retinyl esters, making them available for IMH (isomerohydrolase) processing to all-cis-retinol. The soluble form is regenerated by transferring its palmitoyl groups onto 11-cis-retinol, a reaction catalyzed by LRAT (By similarity).[UniProtKB/Swiss-Prot Function]