

Product datasheet for **MR223598**

Rpe65 (NM_029987) Mouse Tagged ORF Clone

Product data:

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



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ORF Nucleotide Sequence:

>MR223598 representing NM_029987
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTATCCAAATTGAACACCCTGCTGGTGGCTACAAGAACTATTTGAACTGTGGAGAACTGTCTCT
 CACCCTAACAGCTCATGTCACAGGCAGGATCCCTCTGGCTCACTGGCAGTCTCTCCGATGTGGGCC
 AGGGCTCTTTGAAGTTGGATCTGAGCCTTTCTATCACCTGTTGATGGACAAGCCCTTTGCACAAGTTT
 GACTTCAAGGAGGGCCATGTCACATACCACAGAAGATTATCCGCACTGATGCTTATGTTGAGCAATGA
 CTGAGAAGAGGATTGTCATAACAGAATTTGGCACCTGTGCTTTCCAGACCCCTGCAAGAATATATTTTC
 CAGGTTTTTTTCTACTTTAAAGGAGTAGAGGTTACTGACAATGCCCTTGTAAATATCTACCCAGTGGGA
 GAAGATTACTATGCATGCACAGAGACCACTTTATCACAAGATTAACCCAGAGACCTTGGAGACAATTA
 AGCAGGTTGATCTTTGCAACTATATTTCTGTCAATGGTCCACTGCTCATCCACATATTGAAAGTATGG
 AACAGTTTACAACATTGGGAATGCTTTGGAAAAATTTACAGTTGCCTACAACATTATTAAGATCCCT
 CCACTGAAAGCAGACAAGGAAGATCCAATAAACAAAGTCAGAAGTTGTTGTGCAGTCCCTCGCAGTGATC
 GTTTCAAGCCATCTTATGTACACAGTTTTGGTCTGACTCCCAACTATATCGTTTTTGGGAGACTCCAGT
 CAAAATTAACCTTTCAAGTTTCTTTCTCGTGGAGTCTTTGGGGAGCCAACTACATGGACTGTTTCGAG
 TCCAATGAAAGCATGGGGTTTGGCTTCATGTTGCTGATAAAAAAAGAAGAAAATACTTCAATAACAAAT
 ACAGGACTTCCCTTTCAATCTCTTCCATCATATCAACTTATGAAGACAATGGATTTCTGATTGTGGA
 TCTCTGTTGCTGGAAAGGTTTGAATTTGTTTATAATTACTTATATTTAGCCAATTTACGTGAGAATTGG
 GAAGAAGTTAAAAGAAATGCTATGAAGGCTCCTCAGCCTGAAGTCAGGAGATATGTAATCTCTTTGACAA
 TTGACAAGGTCGACACAGGCAGAAATTTAGTCACACTGCCCACTACAACAGCCACTGTCGCAG
 TGATGAGACCATATGGCTGGAACCTGAGGTTCTCTTTTCAGGGCCTCGTCAAGCCTTTGAATTTCCCTCAA
 ATCAATTACCAGAAATTTGGAGGAAACCTTACTTATGCATACGGACTTGGGTTGAATCACTTTGTTTC
 CTGACAAGCTCTGTAAGATGAACGTCAAACTAAAGAAATCTGGATGTGGCAAGAGCCAGATTCTTACCC
 ATCTGAACCCATCTTTGTTTCTCAACCAGATGCTCTGGAAGAAGATGATGGTGTGGTTCTGAGTGTGGT
 GTGAGCCCTGGGGCAGGGCAAAGCCTGCATATCTCTGGTTCTGAATGCCAAAGACTTGAGTGAATTTG
 CCAGGGCTGAAGTGGAGACTAATATCCCTGTGACCTTCCATGGACTGTTCAAAGATCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR223598 representing NM_029987
 Red=Cloning site Green=Tags(s)

MSIQIEHPAGGYKLFETVEELSSPLTAHVTRGRIPLWLTGSLLRCPGLFEVGPSEPFYHLFDGQALLHKF
 DFKEGHVYHRRFIRTDAYVRAMTEKRIVITEFGTCAFPDPCKNIFSRFFSYFKGVEVTDNALVNIYPVG
 EDYYACTETNFITKINPETLETIKQVDLCNYISVNGATAHPHIESDGTVYNIIGNCFGNFTVAYNIKIP
 PLKADKEDPINKSEVVVQFPCSDRFKPSYVHSFGLTPNYIVFVETPVKINLKFLLSSWSLWGANYMDCFE
 SNESMGVWLHVADKRRKYFNKYRTPFNLFHHINTYEDNGFLIVDLCCWKGFEFVYNYLYLANLRENW
 EEVKRNAMKAPQPEVRRYVPLTIDKVDTRNLVTLPHTTATATLRSDETIWLEPEVLFSGPRQAFEPQ
 INYQKFGGKPYTYAYGLGLNHFVPDKLCKMNVKTEIWMWQEPDSEYSEPIFVSQPDAL EDDGVVLSV
 VSPGAGQKPAYLLV LNAKDLSEIARA E VETNIPVTFHGLFKRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9039_c11.zip

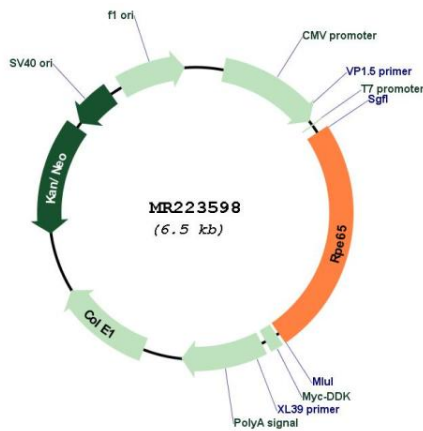
Restriction Sites:

Sgfl-Mlul

RefSeq Size: 1862 bp
RefSeq ORF: 1602 bp
Locus ID: 19892
UniProt ID: [Q91ZQ5](#)
Cytogenetics: 3 82.52 cM
MW: 61.5 kDa

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]

Product images:



Circular map for MR223598