

## Product datasheet for MR204586

### Rdh5 (NM\_134006) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rdh5 (NM_134006) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rdh5
Synonyms:	9-cis; AI987873; cRDH; RDH4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204586 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGCTGCCTCTGCTTCTGGGTGCCTTGTCTGTGGGCAGTGCTGTGGTTGCTCAGAGACCGGCAGAGCC  
TGCCGGCCAGTGATGCTTTCATCTTCATCACTGGCTGTGACTCTGGCTTTGGGCGCCTTCTGGCACTGCA  
ACTTGACCAGAAGGGCTCCAAGTCTGGCCGGCTGCCTGACCCCTCTGGAGCAGAAGACCTGCAGCAG  
ATGGCCTCCTCCCGCCTCCACACAACACTACTGGATATCACTGATCCCCAGAATGTCAGCAAGTTGCCA  
AGTGGGTGAAGACACGTGTTGGAGAACTGGACTTTTTGGTCTGGTGAATAACGCTGGCGTAGCTGGTAT  
CATCGGGCCACACCATGGCTAACACAGGATGATTTCCAGAGAGTACTGAGTGTGAACACACTGGGGCC  
ATCGGTGTCAACCTTGCCTGCTGCCCTGCTACAGCAGGCCAGGGTCCGGTGGTCAACATCACCAAGT  
TCTTGGGCCGCATAGCAGCCAATGGCGGGGCTACTGTGTCTCCAAGTTTGGCCTGGAGGCCCTTCTCTGA  
CAGCCTGAGGCGGGACATGGCTCCGTTCCGAGTACAAGTCTCCATTGTGGAGCCTGGCTTCTTTCGAACC  
CCTGTGACCAACCTGGAGAGTCTGGAGAGCACCTGAAGGCTTGTGGGCCCGGTACCTCCAGCTATAC  
AGGCCACTACGGGAAGCCTTCTCGATACTTATCTTCGAGTACAGCCCGCATCATGAACCTGATCTG  
TGACCCAGAATAACGAAGGTGACCAGTGCCTGGAGCATGCCCTGACTGCTCGCCACCCCCGAACACGC  
TACAGCCAGGCTGGGATGCCAAGTGTCTGGCTGCCTGCCTACCTCCAGCCAGGGTGGTGGATG  
CTGTGCTACCTGGATCCTTCCCGGCCCGCCAGTCAGTCTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204586 protein sequence  
 Red=Cloning site Green=Tags(s)

MWLPLLLGALLWAVLWLLRDRQSLPASDAFIFITGCDSGFGRLLALQLDQKGFQVLGCLTPSGAEDLQQ  
 MASSRLHTLLDITDPQNVQVAKWVKTRVGETGLFGLVNNAGVAGIIGPTPWLTQDDFQRVLSVNTLGP  
 IGVTLALLPLLQQARGRVVNITSVLGRIAANGGGYCVSKFGLEAFSDSLRRDMAPFGVQVSIVEPGFFRT  
 PVTNLESLESTLKACWARLPPAIQAHYGEAFLDTYLRVQRRIMNLICDPELTKVTSCLHEALTARHPRT  
 YSPGWDAKLLWLPASYLPARVVDVLTWILPRPAQSVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_134006

**ORF Size:** 957 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_134006.5](#)

**RefSeq Size:** 1261 bp

**RefSeq ORF:** 957 bp

**Locus ID:** 19682

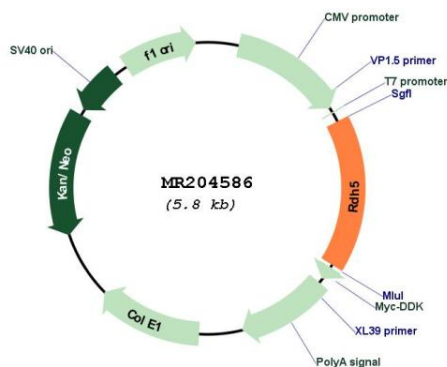
**UniProt ID:** [O55240](#)

**Cytogenetics:** 10 77.19 cM

**MW:** 34.8 kDa

**Gene Summary:** Catalyzes the oxidation of cis-isomers of retinol, including 11-cis-, 9-cis-, and 13-cis-retinol in an NAD-dependent manner (PubMed:10588954, PubMed:9539749). Has no activity towards all-trans retinal (By similarity). Plays a significant role in 11-cis retinol oxidation in the retinal pigment epithelium cells (RPE). Also recognizes steroids (androsterone, androstanediol) as its substrates (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR204586