

## Product datasheet for **MG215595**

### **Rdh16 (NM\_009040) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	Rdh16
Synonyms:	CRAD; CRAD1; Rdh6
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

**ORF Nucleotide Sequence:** >MG215595 representing NM\_009040  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGTGGCTCTACCTGGTGGCACTGGTGGGCCTGTGGACGCTTCTGCGCTTCTTCAGGGTGAGGCAGGTGG  
TGAGCCATCTCCAAGACAAATATGTCTTCATCAGGGCTGTGACTCTGGCTTTGGGACCCTGCTGGCCAG  
ACAGCTGGACAGGAGAGGCATGAGGGTGTGGCTGCATGTCTGACGGAGAAGGGAGCCGAGGAGCTGAGG  
AACAAAGACATCTGACAGGCTGGAGACAGTATCCTGGATGTACCAAGACAGAGATTGTGACAGCCA  
CTCAGTGGGTGAAGGAGCATGTTGGGAACAGAGGACTCTGGGGCCTGGTCAACAACGCTGGCATCTCCAC  
CCCCTCGGGTCCCAACGAGTGGATGAAAAAGCAGGACTTTGCACATGACTGGATGTGAACCTGTTGGGC  
ATGATCGAGGTGACTCTGAGCATGCTGCCTTTAGTGAGGAAGGCGAGGGTCTGTGGTCAACGTCTCCA  
GTGTCATGGTTCGAGTGTCTCTTTGGTGGTGGTTACTGCATCTCTAAGTATGGTGTAGAGGCTTCTC  
AGACTCCCTCAGGAGGGAGCTCTCCTACTTTGGGGTGAAGGTGGCTATTATAGAGCCTGGCTTCTCCTG  
ACCGGTGTGACCAGTAGTGCCAGATTATGCTCAAATACCCAGATGCTGTGGGACCAGACCAGCTCAGAAA  
TCAGGGAGATCTATGGCGAGAAGTACCTGGCATCTATCTGAAAAGGCTAAACAATTTGGACAAGAGGTG  
CAACAAGGACCTGTCTGGGGTACTGACTGCATGGAGCATGCTCTGACTGCCTGTCACCCTCGTACCCGA  
TACTCAGCTGGCTGGGATGCTAAGCTCTTCTACCTCCCCTTGAGCTACCTGCCACCTTTCTGTGGATG  
CCCTTCTACTGGACTCCCTGAAGCCTGAAAAGCCCTC

**ACCGGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



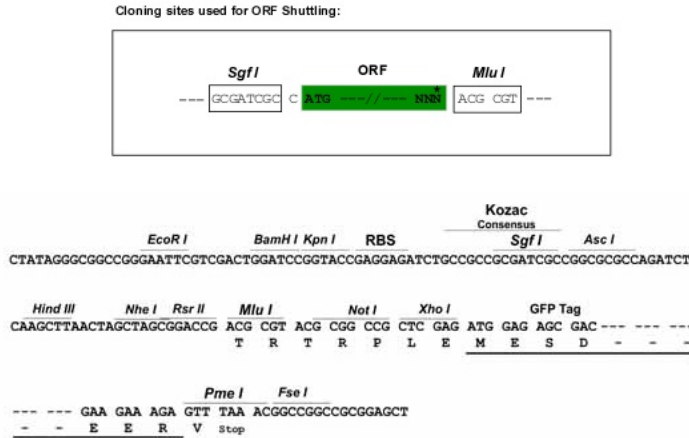
**Protein Sequence:** >MG215595 representing NM\_009040  
 Red=Cloning site Green=Tags(s)

MWLYLVALVGLWTLRFFRVRQVVSHLQDKYVFITGCDSGFGTLLARQLDRRGMRVLAACLTEKGAEELR  
 NKTSRLETIVLDVTKTESIVTATQVWKEHVGNRGLWGLVNNAGISTPSGPNEWMKKQDFAHVLDVNLGLG  
 MIEVTL SMLPLVRKARGRVVNVSSVMGRVSLFGGGYCI SKYVGEAFSDSLRRELSYFGVKVAIIIEPGFFL  
 TGVTSSARLCSNTQMLWDQTSSEIREIYGEKYLASYLKRLNKLDKRCNKDLSGVTDCEHALTACHPRTR  
 YSAGWDAKLFYLPLSYLPTFLVDALLYWTSLKPEKAL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_009040

**ORF Size:** 951 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\\_009040.3](#), [NP\\_033066.1](#)

**RefSeq Size:** 3208 bp

**RefSeq ORF:** 954 bp

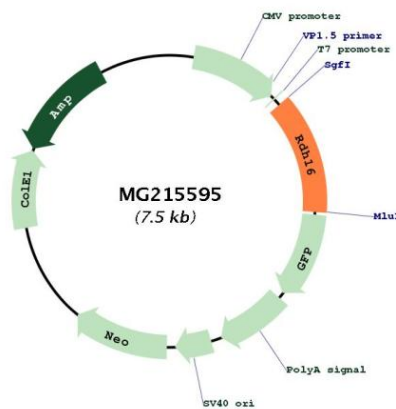
**Locus ID:** 19683

**UniProt ID:** [O54909](#)

**Cytogenetics:** 10 D3

**Gene Summary:** Oxidoreductase with a preference for NAD. Oxidizes all-trans-retinol, 9-cis-retinol, 11-cis-retinol and 13-cis-retinol to the corresponding aldehydes. Has higher activity towards CRBP-bound retinol than with free retinol. Oxidizes 3-alpha-hydroxysteroids. Oxidizes androstanediol and androsterone to dihydrotestosterone and androstanedione. Can also catalyze the reverse reaction. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG215595