

## Product datasheet for **RG205138**

### RDH5 (NM\_002905) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RDH5 (NM_002905) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RDH5
Synonyms:	9cRDH; HSD17B9; RDH1; SDR9C5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG205138 representing NM_002905 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGCTGCCTCTTCTGCTGGGTGCCTTACTCTGGGCAGTGCTGTGGTTGCTCAGGGACCGGCAGAGCC  
TGCCCGCCAGCAATGCCCTTGTCTTCATCACCGGCTGTGACTCAGGCTTTGGGCGCCTTCTGGCACTGCA  
GCTGGACCAGAGAGGCTCCGAGTCTGGCCAGCTGCCTGACCCCTCCGGGGCCGAGGACCTGCAGCGG  
GTGGCCTCCTCCCGCCTCACACCACCTGTTGGATATCACTGATCCCCAGAGCGTCCAGCAGGCAGCCA  
AGTGGGTGGAGATGCACGTTAAGGAAGCAGGGCTTTTTGGTCTGGTGAATAATGCTGGTGTGGCTGGTAT  
CATCGGACCCACACCATGGCTGACCCGGGACGATTTCCAGCGGGTGTGAATGTGAACACAATGGGTCCC  
ATCGGGGTCAACCCTTGCCTGCTGCCTCTGCTGCAGCAAGCCCGGGCCGGGTGATCAACATCACCAAGC  
TCCTGGGTGCGCTGGCAGCCAATGGTGGGGGCTACTGTGTCTCCAAATTTGGCCTGGAGGCCTTCTCTGA  
CAGCCTGAGGCGGGATGTAGCTCATTTTGGGATACGAGTCTCCATCGTGGAGCCTGGCTTCTTCCGAACC  
CCTGTGACCAACCTGGAGAGTCTGGAGAAAACCTGCAGGCCTGCTGGGCACGGCTGCCTCCTGCCACAC  
AGGCCACTATGGGGGGCCTTCTCACCAGTACCTGAAATGCAACAGCGCATCATGAACCTGATCTG  
TGACCCGGACCTAACCAAGGTGAGCCGATGCCTGGAGCATGCCCTGACTGCTCGACACCCCCGAACCCGC  
TACAGCCAGGTTGGGATGCCAAGCTGCTGGCTGCCTGCCTCCTACCTGCCAGCCAGCCTGGTGGATG  
CTGTGCTACCTGGGTCTTCCCAAGCTGCCAAGCAGTCTAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

**Protein Sequence:** >RG205138 representing NM\_002905  
Red=Cloning site Green=Tags(s)

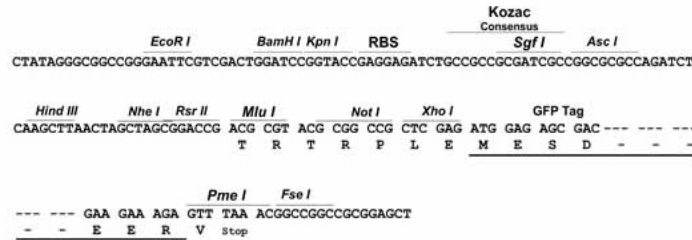
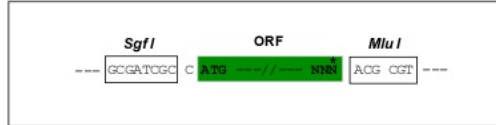
MWLPLLLGALLWAVLWLLRDRQSLPASNALVFITGCDSGFGRLLALQLDQQRGFRVLASCLTPSGAEDLQR  
 VASSRLHTLLDITDPQSVQQAAKWVEMHVKEAGLFGLVNNAGVAGIIGPTPWLTRDDFQRVLNVNTMGP  
 IGVTLALLPLLQQARGRVINITSVLGRLAANGGGYCVSKFGLEAFSDSLRRDVAHFGIRVSIVEPGFFRT  
 PVTNLESLEKTLQACWARLPATQAHYGGAF LTKYLKMQQRIMNLCDPDLTKVSRCLEHALTARHPRT  
 YSPGWDAKLLWLPASYLPASLVDAVLTWVLPKPAQAVY

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_002905

**ORF Size:** 954 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.

**RefSeq:** [NM\\_002905.2](#), [NP\\_002896.2](#)

**RefSeq Size:** 1246 bp

**RefSeq ORF:** 957 bp

**Locus ID:** 5959

**UniProt ID:** [Q92781](#)

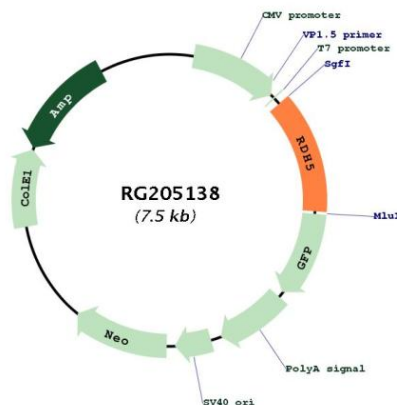
**Cytogenetics:** 12q13.2

**Protein Families:** Druggable Genome

**Protein Pathways:** Retinol metabolism

**Gene Summary:** This gene encodes an enzyme belonging to the short-chain dehydrogenases/reductases (SDR) family. This retinol dehydrogenase functions to catalyze the final step in the biosynthesis of 11-cis retinaldehyde, which is the universal chromophore of visual pigments. Mutations in this gene cause autosomal recessive fundus albipunctatus, a rare form of night blindness that is characterized by a delay in the regeneration of cone and rod photopigments. Alternative splicing results in multiple transcript variants. Read-through transcription also exists between this gene and the neighboring upstream BLOC1S1 (biogenesis of lysosomal organelles complex-1, subunit 1) gene. [provided by RefSeq, Dec 2010]

## Product images:



Circular map for RG205138