

Product datasheet for **RC205138**

RDH5 (NM_002905) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RDH5 (NM_002905) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RDH5
Synonyms:	9cRDH; HSD17B9; RDH1; SDR9C5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205138 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGCTGCCTCTTCTGCTGGGTGCCTTACTCTGGGCAGTGCTGTGGTTGCTCAGGGACCGGCAGAGCC
TGCCCGCCAGCAATGCCCTTGTCTTCATCACCGGCTGTGACTCAGGCTTTGGGCGCCTTCTGGCACTGCA
GCTGGACCAGAGAGGCTCCGAGTCTGGCCAGCTGCCTGACCCCTCCGGGGCCGAGGACCTGCAGCGG
GTGGCCTCCTCCCGCCTCCACACCCTGTTGGATATCACTGATCCCCAGAGCGTCCAGCAGGCAGCCA
AGTGGGTGGAGATGCACGTTAAGGAAGCAGGGCTTTTTGGTCTGGTGAATAATGCTGGTGTGGCTGGTAT
CATCGGACCCACACCATGGCTGACCCGGGACGATTTCCAGCGGGTGTGAATGTGAACACAATGGGTCCC
ATCGGGGTCAACCCTTGCCTGCTGCCTCTGCTGCAGCAAGCCCGGGCCGGGTGATCAACATCACCAAGCG
TCCTGGGTGCGCTGGCAGCCAATGGTGGGGGCTACTGTGTCTCCAAATTTGGCCTGGAGGCCTTCTCTGA
CAGCCTGAGGCGGGATGTAGCTCATTTTGGGATACGAGTCTCCATCGTGGAGCCTGGCTTCTTCCGAACC
CCTGTGACCAACCTGGAGAGTCTGGAGAAAACCTGCAGGCTGCTGGGCACGGCTGCCTCCTGCCACAC
AGGCCACTATGGGGGGCCTTCTCACCAAGTACCTGAAATGCAACAGCGCATCATGAACCTGATCTG
TGACCCGGACCTAACCAAGGTGAGCCGATGCCTGGAGCATGCCCTGACTGCTCGACACCCCGAACCCTGC
TACAGCCAGGTTGGGATGCCAAGCTGCTGGCTGCCTGCCTACCTGCCAGCCAGCCTGGTGGATG
CTGTGCTACCTGGGTCTTCCCAAGCTGCCAAGCAGTCTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205138 protein sequence
Red=Cloning site Green=Tags(s)

MWLPLLLGALLWAVLWLLRDRQSLPASNALVFITGCDSGFGRLLALQLDQRGFRVLASCLTPSGAEDLQR
 VASSRLHTLLDITDPQSVQAAKWMHVHKEAGLFGLVNNAGVAGIIGPTPWLRDDFQRVLNVNTMGP
 IGVTLALLPLLQQARGRVINITSVLGRLAANGGGYCVSKFGLEAFSDSLRRDVAHF GIRVSIVEPGFFRT
 PVTNLESLEKTLQACWARLPPATQAHYGGAF LTKYLKMQQRIMNLCDPDLTKVSRCLEHALTARHPRTR
 YSPGWDAKLLWLPASYLPASLVDAVLTWVLPKPAQAVY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6015_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002905

ORF Size: 954 bp

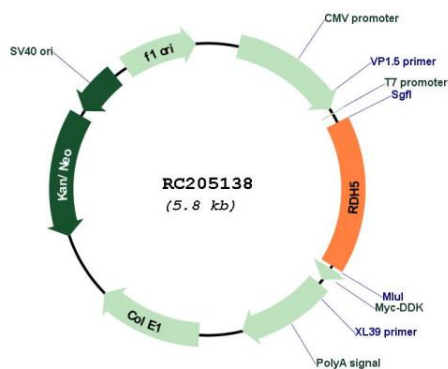
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

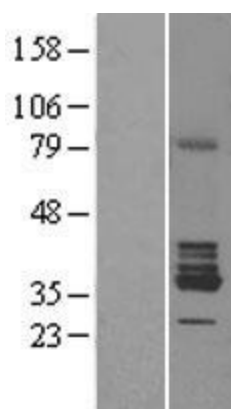
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_002905.5
RefSeq Size:	1354 bp
RefSeq ORF:	957 bp
Locus ID:	5959
UniProt ID:	Q92781
Cytogenetics:	12q13.2
Protein Families:	Druggable Genome
Protein Pathways:	Retinol metabolism
MW:	34.9 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC205138



Western blot validation of overexpression lysate (Cat# [LY401019]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205138 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).