

Product datasheet for **RC223945**

RDH8 (NM_015725) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RDH8 (NM_015725) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RDH8
Synonyms: PRRDH; SDR28C2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC223945 representing NM_015725
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCGCTGCACCCCGGACTGTGTTGATCTCCGGCTGCTCATCAGGAATTGGTCTGGAACCTGCAGTGC
 AACTGGCCATGACCCCAAGAAGCGCTACCAGGTCGTGGCCACCATGAGGGACCTGGGAAGAAGGAGAC
 ACTGGAGGCAGCTGCTGGGGAGGCTCTGGGGCAGACCCTCACCGTGGCCAGCTGGACGTGTGCAGTGAT
 GAGTCGGTGGCCAGTGTCTCAGCTGTATCCAGGGAGAAGTGGACGTGCTGGTGAATAATGCTGGAATGG
 GCCTGGTGGGGCCCTGGAGGGGCTCAGCCTTGCTGCCATGCAGAATGTCTTTGACACCAACTTTTTCGG
 AGCTGTCCGTCTCGTCAAAGCTGTGCTTCCAGGCATGAAGAGGAGCGCCAGGGCCACATCGTGGTGATC
 AGCAGTGTGATGGCCTGCAGGGTGTATCTTCAACGATGTCTATGCAGCTTCCAAGTTCGCCCTGGAGG
 GATTCTTCGAAAGCCTCGCTATCCAGCTGCTGCAGTTCAACATCTTCATCTCCCTGGTGGAGCCAGGCC
 CGTGGTACCCGAGTTTGAGGGGAAGCTTCTGGCGCAGGTTTCTATGGCTGAGTTCACAGGCACTGACCC
 GAGACCTGCACTACTCCGGGACCTCTATCTCCAGCCTCCAGGAAGCTGTTTTGCTCCGTGGGACAGA
 ACCACAGGACGTGGTTCAGGCCATTGTCAACGTATCAGCTCGACTCGACCACCCTGCGCCGACAGAC
 CAACATCCGCTACTCGCCGCTGACCACGCTCAAAACCGTGGATTCTCTGGCAGCCTGTATGTGCGAACG
 ACCCACCCTCCTCTTCCGCTGTCACGCTCCTCAACCTTGGCCTTCAATGTCTGTCTGCGGCTGCC
 TCCCAACGCGGGTGGCCAAAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC223945 representing NM_015725
Red=Cloning site Green=Tags(s)

MAAAPRTVLISGCSSGIGLELAVQLAHDPPKRYQVVATMRDLGKKETLEAAAGEALGQTLTVAQLDVCS
 ESVAQCLSCIQGEVDVLVNNAGMGLVGPLEGLSLAAMQNVFDTNFFGAVRLVKAVLPGMKRRRQGHIVVI
 SSVMGLQGVIFNDVYAAASKFALEGFFESLAIQLLQFNIFISLVEPGPVVTEFEGKLLAQVSMAEFFPGTDP
 ETLHYFRDLYLPASRKLFCSVGQNPQDVVQAIIVNVISSSTRPPLRRQTNIIRYSPLTTLKTVDSSGSLYVRT
 THRLLFRCPRLLNLGLQCLSCGCLPTRVRPR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8044_b02.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_015725

ORF Size: 933 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_015725.4](#)

RefSeq Size: 1714 bp

RefSeq ORF: 936 bp

Locus ID: 50700

UniProt ID: [Q9NYR8](#)

Cytogenetics: 19p13.2

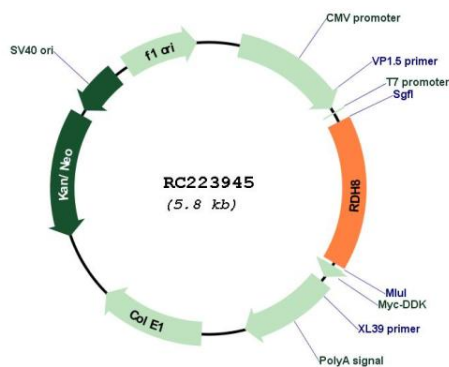
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Retinol metabolism

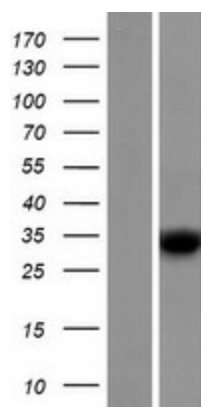
MW: 33.6 kDa

Gene Summary: This gene encodes a member of the short-chain dehydrogenase/reductase family. The encoded protein catalyzes the reduction of all-trans-retinal to all-trans-retinol, the first reaction step of the rhodopsin regeneration pathway. This enzymatic reaction is the rate-limiting step in the visual cycle. [provided by RefSeq, Feb 2014]

Product images:



Circular map for RC223945



Western blot validation of overexpression lysate (Cat# [LY414359]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223945 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).