

Product datasheet for **RC206759**

RDHE2 (SDR16C5) (NM_138969) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RDHE2 (SDR16C5) (NM_138969) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RDHE2
Synonyms:	EPHD-2; RDH#2; RDH-E2; RDHE2; retSDR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206759 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGTCTTTCAACCTGCAATCATCAAAGAACTGTTCAATTTCTTAGGAAAATCACTGTTTAGTCTTCTGG
AGGCTATGATTTTTGCCTTACTCCAAAGCCACGGAAGAACGTTGCTGGTAAAATAGTCCTCATCACAGG
TGCTGGAAGTGGACTCGGAAGGCTTTAGCCTTGCAAGTTGCCCGGCTGGGATCTGTTCTTGTCTCTGG
GATATCAATAAGGAGGGGAATGAGGAAACATGTAAGATGGCTCGGAAGCTGGAGCCACAAGAGTGCACG
CCTATACCTGCGATTGCAGCCAAAAGGAAGGAGTGTATAGAGTAGCCGACCAGGTTAAAAAGAAGTCGG
CGATGTTTCCATCCTAATCAACAATGCCGGAATCGTAACAGGCAAAAAGTTCTTGACTGTCCAGATGAG
CTTATGGAAAAGTCATTTGATGTGAATTTCAAAGCACATTTATGGACTTATAAAGCCTTTCTACCTGCTA
TGATTGCTAATGACCATGGACATTTGGTTTGCATTTCAAGTTCAGCTGGATTAAGTGGAGTAAATGGGCT
GGCAGATTACTGTGCAAGTAAATTTGCAGCCTTTGGGTTTGTGTAATCTGTATTTGTAGAAAACATTTGTC
CAAAAACAAAAGGGGATCAAACCACGATTGTGTGCCCTTTTTATAAAAAGTGAATGTTTGAAGTT
GTACTACAGGCTGCCTTCTCTGTTGCCAATTCGGAACCAAAAATATGCAGTTGAAAAAATAGTAGAAGC
TATTCTACAAGAAAAATGTAAGTGTATATGCCAAAGTTGTTATACTTCATGATGTTTCTTAAAAGCTTT
TTGCCCTCAAGACAGGACTGCTTATAGCTGACTATTTGGGCATCCTTCATGCAATGGATGGCTTTGTTG
ACCAAAAAGAAGAAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC206759 protein sequence
Red=Cloning site Green=Tags(s)

MSFNLQSSKLLFIFLGLKSLFSLLEAMIFALLPKPRKNVAGEIVLITGAGSGLGRLLALQFARLGSVLVW
 DINKEGNEETCKMAREAGATRVHAYTCDSCSQKEGVYRVADQVKKEVGDVSI LINNAGIVTGKKFLDCPDE
 LMEKSFVDVNFKAHLWYKAFLPAMIANDHGLVCISSSAGLSGVNGLADYCKAF AAFGF AFSV FVET FV
 QKQKGIKTTIVCPFFIKTGMFEGCTTGCP SLLP ILEPKYAVEKIVEAILQEKMYL YMPKLLYFMMFLKSF
 LPLKTGLLIADYLGILHAMDGFVDQKKKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6344_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_138969

ORF Size: 927 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_138969.3](#), [NP_620419.2](#)

RefSeq Size: 3039 bp

RefSeq ORF: 930 bp

Locus ID: 195814

UniProt ID: [Q8N3Y7](#)

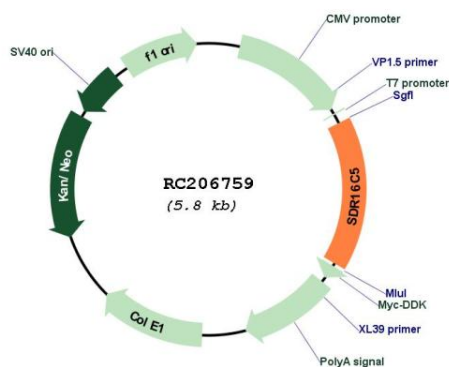
Cytogenetics: 8q12.1

Protein Families: Druggable Genome

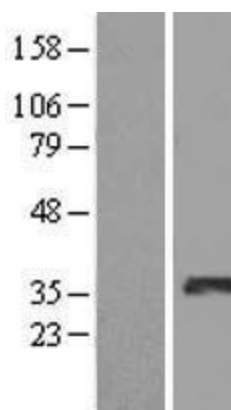
MW: 34.1 kDa

Gene Summary: This gene encodes a member of the short-chain alcohol dehydrogenase/reductase superfamily of proteins and is involved in the oxidation of retinol to retinaldehyde. The encoded protein is associated with the endoplasmic reticulum and is predicted to contain three transmembrane helices, suggesting that it is an integral membrane protein. It recognizes all-trans-retinol and all-trans-retinaldehyde as substrates and exhibits a strong preference for NAD(+)/NADH as cofactors. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]

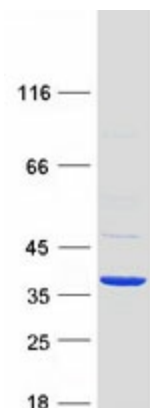
Product images:



Circular map for RC206759



Western blot validation of overexpression lysate (Cat# [LY408444]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206759 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SDR16C5 protein (Cat# [TP306759]). The protein was produced from HEK293T cells transfected with SDR16C5 cDNA clone (Cat# RC206759) using MegaTran 2.0 (Cat# [TT210002]).