

Product datasheet for **SC126363**

RDHE2 (SDR16C5) (NM_138969) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RDHE2 (SDR16C5) (NM_138969) Human Untagged Clone
Tag:	Tag Free
Symbol:	RDHE2
Synonyms:	EPHD-2; RDH#2; RDH-E2; RDHE2; retSDR2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene sequence for NM_138969 edited
 CCGGCTTCTCCGCGGACAGCTAGGGAGAGTGTCTGGGTGTCAGCCAGAACATGTCTTTC
 AACCTGCAATCATCAAAGAACTGTTCAATTTTCTTAGGAAAATCACTGTTTAGTCTTCTG
 GAGGCTATGATTTTTGCCTTACTCCAAAGCCACGGAAGAACGTTGCTGGTGAATAGTC
 CTCATCACAGGTGCTGGAAGTGGACTCGGAAGGCTCTTAGCCTTGCAGTTGCCCGGCTG
 GGATCTGTTCTTGTCTCTGGGATATCAATAAGGAGGGGAATGAGGAAACATGTAAGATG
 GCTCGGAAGCTGGAGCCACAAGAGTGCACGCCATAACCTGCGATTGCAGCCAAAAGGAA
 GGAGTGTATAGAGTAGCCGACCAGGTTAAAAAGAAGTCGGCGATGTTTCCATCCTAATC
 AACAAATGCCGGAATCGTAACAGGCAAAAAGTTCCTTGACTGTCCAGATGAGCTTATGGAA
 AAGTCATTTGATGTAATTTCAAAGCACATTTATGGACTATAAAGCCTTTCTACCTGCT
 ATGATTGCTAATGACCATGGACATTTGGTTTGCATTTCAAGTTCAGCTGGATTAAGTGA
 GTAAATGGGCTGGCAGATTACTGTGCAAGTAAATTTGCAGCCTTTGGGTTTGTGAATCT
 GTATTTGTAGAAACATTTGTCCAAAAACAAAAGGGGATCAAACCACGATTGTGTGCCCC
 TTTTTTATAAAAAGTGAATGTTTGAAGTTTGTACTACAGGCTGTCTTCTCTGTGGCCA
 ATTCTGGAACCAAATATGCAGTTGAAAAATAGTAGAAGCTATTCTACAAGAAAAAATG
 TACTTGTATATGCCAAAGTTGTTATACTTCATGATGTTTCTTAAAAGCTTTTTGCCCTC
 AAGACAGGACTGCTTATAGCTGACTATTTGGGCATCCTTCATGCAATGGATGGCTTTGTT
 GACCAAAAGAAGAAGCTCTAAAGACCAACTCTATGGCTAAGGTCATCTGATACACAGTGT
 TACATAATGCGTACTTCAATGAAGAAAAGTATTTTTGTCTGACAGTGGAAATATCTGGA
 GACCACAAGTACCACTCTATTCTGTTATCTGGACTAGAATTTTCAATCAATGTGTTTGA
 AAATAATGTTGCTATCACCTATTTGGTTGAGTTTTGGTTTTTCTTTTTCTTTTTTTTTC
 CAAAAATAAGACAGCCATTTTTGTCAATTTCCATTACCACAGATGTAAGAAAGTGATAA
 GCCATGGCCATGAGCTGCCCTGAGCTTTGGTCGTTGGGAGGTGGCTCAAATGGAGCCAG
 CGGCTGTGGTTGACCTGCCTTGGGGAGCAGGGCTGAGGGGCGAAGAGGACATGTGGATAT
 CCAGCCAGAATGCCCTCTCTCCAGAGGACACAGCTCTGGATTTCTACCCCTTGCTAT
 CCTCTCTGGCCATTTTGAACCTGTACCACCTAATGTAGAAAAGGCCCGCTCCAGTGCCC
 TTCTTTCCAAAACAGCTACACAAATGCTTCTGAATGCCCTGGATACGCAGACCGAGTGGC
 AGTCTGGCTAAAGGCCCATCCAGCACTATTGTGCCAAGAGCCTTACCGGGCATTCCCTG
 AAGCCCCCTCATAGGCAGTGATCCTAGACCAAACCTTAAATAGAATCACTTTTGTTTCC
 TAGAAGAGATCAAAGAGTGGTTGCTTCTACTTTGAAGATGAAATATACCAAGTTAGGT
 TTTTTGCTATCTATTGATCCAAAAATATATTCGTGCAATTAAGTTAAGTGTTCAACTT
 AGTATTTCAAGTTGGGATTCAGGTTGAGGCATTTTCTGCAGAATGGGCAATTTTATGCA
 TTTATATTCATCAGTGCTGCCCTCACTTTGGATCTATTGTATTCTTACAGTTAATCAAC
 TGGCAAAGTGCTTTCATGCTTTGGAGATTAACATAAAAAGCAAGATTAAGAAAAATATGT
 TAATTACCATATCCCTGGAACTCCTTCTCAGGCTGGTGGGGGCAGCCTTGCAAGAGAAAC
 AGCAGCCTTTGTCTTCCCTCTGTGGGGAGCAAGGAGGGGATGAGCGGTACCTTGGGA
 GACCCGGTAAAAGTCTAAAGAATTGAGAATTTGACTATCTTGGGGTAAAATGCTGTCTAT
 AGGGGCAGCAGTCTCAGGGGTGTAACCTCTGGAATCCACTATGGTTTACCTTGAGTGGC
 CTGCACGAACATGACAGCCCTGATCTGTATTTCCCTTCCATTGAGAAAACCTTAAAAAAA
 AAAAACTTGTTTTATGATAATATTATAAACAATCAAACTAACATTTACTGTGCCCGCAG
 CAAATTAAGTATTTGACAAAATTATTTTATTAAACGAGACTGTCAATCATTACTCAAAG
 AATGATGAAGGATTTGGTGTATGCCAAAGAATAAAGGCGTTTTATTTACAGTGACATC
 TTATTCCACTGTAGATGTATACTGAGAGGATCAAAGGCCCTCTCAGAGTCACCCACTGAT
 GTTCCAAATCCTTGTTAACAAGTTAATTAAGAGAGAAGCACAATATTGCTGTAATATT
 ACAATTCCAGAAGCGTATCTTCTAGGGTCTGTCTATTTAGTTAAAGAATAAAGCTCAGA
 CTCTTCGGGGATTCAGTACAACAAGGTCCAGGAGCACTGCAGGCATCCTCCACATCATA
 ACAGCATTAAATAGCAATTTTCTAATTGGAGTGCATCTTGGCTGGACTGCGACAAGGC
 CTGAAATTCATTTGTGGTTTTAAAAATACCATAAAATTTGTCTAAACAAATTCAAAAAAA
 AA
 AAAAAAAAAA

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_138969 unedited GGTCATAATTGTATACCATCATATAGGCGGCCGCGTAATCCCGGGATCCGGCTTCTCCGC GGACAGCTAGGGAGAGTGTCTGGGTGTCAGCCAGAACATGTCTTTCAACCTGCAATCAT CAAAGAACTGTTCAATTTCTTAGGAAAATCACTGTTTAGTCTTCTGGAGGCTATGATTT TTGCCTTACTCCCAAAGCCACGGAAGAACGTTGCTGGTGAATAGTCCTCATCACAGGTG CTGGAAGTGGACTCGGAAGGCTTTAGCCTTGCAGTTTGCCCGGCTGGGATCTGTTCTTG TTCTCTGGGATATCAATAAGGAGGGGAATGAGGAAACATGTAAGATGGCTCGGGAAGCTG GAGCCACAAGAGTGCACGCCTATACCTGCGATTGCAGCCAAAAGGAAGGAGTGTATAGAG TAGCCGACCAGGTTAAAAAGAAGTCGCGCATGTTTCCATCCTAATCAACAATGCCGGAA TCGTAACAGGCCAAAAAGTTCCTTGACTGTCCAGATGAGCTTATGGAAAAGTCATTTGATG TGAATTTCAAAGCACATTTATGGACTTATAAAGCCTTTCTACCTGCTATGATTGCTAATG ACCATGGACATTTGGTTTGCATTTCAAGTTCAGCTGGATTAAGTGGAGTAAATGGGCTGG CAGATTACTGTCAAGTAAATTTGCAGCCTTTGGGTTTGTGAATCTGTATTTGTAGAAA CATTTGTCCAAAAACAAAAGGGGATCAAACCACGATTGTGTGCCCTTTTNTATAAAAA CTGGAATGTTTGAAGTTGTAACAGGCTGTCCTTCTCTGTTGCCAATTCTGGAACCAA ATATGCAGTTGAAAAATAGTAGAAGCTATTCTACAAGAAAAATGTAATTGTATATGCCAA AGTTGNTATACTTCATGATGTTTCTTAAAAGCTTT
Restriction Sites:	Please inquire
ACCN:	NM_138969
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_138969.1</u> , <u>NP_620419.1</u>
RefSeq Size:	2297 bp
RefSeq ORF:	696 bp
Locus ID:	195814
UniProt ID:	<u>Q8N3Y7</u>
Cytogenetics:	8q12.1
Protein Families:	Druggable Genome

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]

Transcript Variant: This variant (2) lacks an alternate exon in the 3' coding region compared to variant 1. It encodes isoform 2, which is shorter than and has a distinct C-terminus compared to isoform 1.