

## Product datasheet for **SC312933**

### Retinol dehydrogenase 16 (RDH16) (NM\_003708) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Retinol dehydrogenase 16 (RDH16) (NM_003708) Human Untagged Clone
Tag:	Tag Free
Symbol:	RDH16
Synonyms:	hRDH-E; RODH-4; SDR9C8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC312933 representing NM_003708. Blue=Insert sequence Red=Cloning site Green=Tag(s)

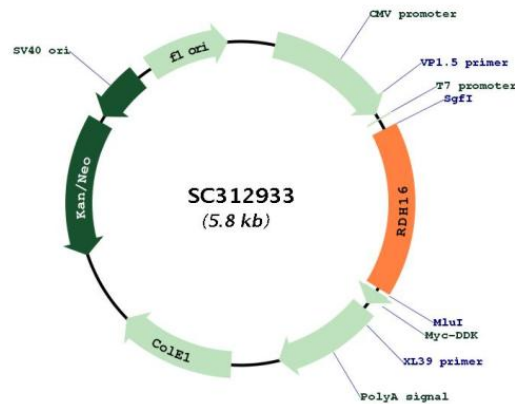
```
GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGTGGCTCTACCTGGCGGTTTTCTGTTGGCCTGTACTACCTTCTGCACTGGTACCGGAGAGGCAGGTG
CTGAGCCACCTGAGAGATAAGTATGTGTTTCATCACGGGCTGTGACTCTGGCTTCGGGAACTGCTGGCC
AGACAGCTGGATGCACGAGGCTTGGGGTGTGGCTGCATGTCTGACGGAGAAAGGAGCCGAGCAGCTG
AGGGGCCAGACTTCAGACAGGCTGGAGACGGTGACCCTGGATGTTACCAAGACAGAGAGCGTTGCTGCA
GCCGCCCAGTGGTGAAGGAGTGCCTGAGAGACAAAGGACTCTGGGCCCTGGTGAATAATGCTGGCATC
TCCTTGCCACGGCTCCAATGAGTTGCTACCAAGCAGGACTTCGTGACCATACTGGACGTGAACCTTG
TTGGGGTATTGATGTGACTCTGAGCCTGCTGCCCTTAGTGAGGAGGGCCAGGGCCGTGGTCAAC
GTCTCCAGTGTCATGGGCCGGGTGTCACTTTTTGGTGGAGGCTACTGCATCTCCAAGTATGGCGTGGAA
GCCTTCTCTGACTCCCTCAGGAGGGAACCTCCTACTTTGGGGTGAAGGTGGCTATGATTGAACCTGGC
TATTTCAAGACTGCTGTGACCAGTAAGGAGAGATTCTTAAGAGCTTCTGGAGATTTGGGACCGGTCC
AGTCCAGAGGTCAAGGAGGCTATGGCGAGAAGTTTGTTCAGACTATAAGAAATCAGCTGAACAAATG
GAGCAGAAGTGCACACAGGATCTGTCGTTGGTGACCAACTGCATGGAGCATGCGCTGATTGCCTGCCAC
CCCCGTACTCGTACTCAGCTGGCTGGGATGCCAAGCTTCTACCTCCCATGAGCTACATGCCACC
TTCTGTGGATGCCATTATGTAAGTGGTCTCTCCAAGCCCGGCCAAGGCTCTATGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: Sgfl-Mlul



[View online »](#)

## Plasmid Map:



**ACCN:** NM\_003708

**Insert Size:** 954 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_003708.4</a>
<b>RefSeq Size:</b>	3478 bp
<b>RefSeq ORF:</b>	954 bp
<b>Locus ID:</b>	8608
<b>UniProt ID:</b>	<a href="#">O75452</a>
<b>Cytogenetics:</b>	12q13.3
<b>Domains:</b>	adh_short
<b>Protein Pathways:</b>	Metabolic pathways, Retinol metabolism
<b>MW:</b>	35.7 kDa
<b>Gene Summary:</b>	<p>Oxidoreductase with a preference for NAD. Oxidizes all-trans-retinol, 9-cis-retinol, 11-cis-retinol and 13-cis-retinol to the corresponding aldehydes (PubMed:10329026, PubMed:12534290, PubMed:9677409). Has higher activity towards CRBP-bound retinol than with free retinol (PubMed:12534290). Oxidizes also 3-alpha-hydroxysteroids. Oxidizes androstenediol and androsterone to dihydrotestosterone and androstenedione. Can also catalyze the reverse reaction (PubMed:10329026, PubMed:9677409, PubMed:29541409). [UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>