

## Product datasheet for **RC209800**

### Retinol Saturase (RETSAT) (NM\_017750) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Retinol Saturase (RETSAT) (NM_017750) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Retinol Saturase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC209800 representing NM\_017750  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTGGCTTCGCTGGTGTCTCTGGCTGTGTCTGTGTGGCCGTCTCTGCAAAGTTTACTTGGGAC  
 TATTCTCTGGCAGCTCCCGAATCTTTCTCCGAAGATGTCAAACGGCCCCAGCGCCCTGGTAACTGA  
 CAAGGAGGCCAGGAAGAAGTTCTCAAACAAGTTTTTCAGCAACCAAGTGCCGGAGAAGCTGGATGTG  
 GTGGTAATTGGCAGTGGCTTTGGGGCCTGGTGCAGCTGCAATTCTAGCTAAAGCTGGCAAGCAGTCC  
 TGGTGTGGAAACAACATAACCAAGCAGGGGGCTGTGTACATACCTTTGAAAGAATGGCCTTGAATTTGA  
 CACAGGAATCCATTACATTGGCGTATGGAAGAGGGCAGCATTGGCCGTTTTATCTTGGACCAGATCACT  
 GAAGGGCAGCTGGACTGGCTCCCCTGTCTCTCTTTTACATCATGGTACTGGAAGGGCCCAATGGCC  
 GAAAGGAGTACCCATGTACAGTGGAGAGAAAGCCTACATTAGGGCCTCAAGGAGAAGTTCCACAGGA  
 GGAAGCTATCATTGACAAGTATATAAGCTGGTTAAGGTGGTATCCAGTGGAGCCCTCATGCCATCCTG  
 TTGAAATTCCTCCATTGCCCGTGGTTCAGCTCCTCGACAGGTGTGGGCTGTGACTCGTTTCTCTCCAT  
 TCCTTCAAGCATCCACCCAGAGCCTGGCTGAGGTCTGCAGCAGCTGGGGCCTCTCTGAGCTCCAGGC  
 AGTACTCAGCTACATCTTCCCACCTTACGGTGTACCCCCAACCCAGTGCCTTTTCCATGCACGCCCTG  
 CTGGTCAACCACTACATGAAAGGAGGCTTTTATCCCCGAGGGGTTCCAGTGAATTCGCTTCCACACCA  
 TCCCTGTGATTACGCGGGCTGGGGCGCTGTCTCACAAAGGCCACTGTGCAGAGTGTGTGCTGGACTC  
 AGCTGGGAAAGCCTGTGGTGTGAGTGAAGAAGGGGCATGAGCTGGTGAACATCTATTGCCCATCGTG  
 GTCTCCAACGCAGGACTGTTCAACACCTATGAACACCTACTGCCGGGGAACGCCCGCTGCCTGCCAGGTG  
 TGAAGCAGCAACTGGGGACGGTGGCGCCGGCTTAGGCATGACCTGTGTTTTCATCTGCGAGGCAC  
 CAAGGAAGACTGCATCTGCCGTCCACCACTACTATGTTTACTATGACACGGACATGGACCAGGCGATG  
 GAGCGCTACGTCTCCATGCCAGGGAAGAGGCTGCGGAACACATCCCTCTTCTTCTTCTTCCAT  
 CAGCCAAAGATCCGACCTGGGAGGACCGATTCCCAGGCCGGTCCACCATGATCATGCTCATAACCACTGC  
 CTACGAGTGGTTTGGAGTGGCAGGCGGAGCTGAAGGGAAAGCGGGCAGTACTGAGACCTTCAAA  
 AACTCCTTTGTGGAAGCCTCTATGTGAGTGGTCTGAACTGTTCCACAGCTGGAGGGGAAAGTGGAGA  
 GTGTGACTGCAGGATCCCACCTACCAACCAAGTCTATCTGGCTGCTCCCCGAGGTGCTGCTACGGGGC  
 TGACCATGACCTGGGCCGCTGCACCCTGTGTGATGGCCTCCTGAGGGCCAGAGCCCATCCCCAAC  
 CTCTATCTGACAGCCAGGATATCTTACCTGTGGACTGGTGGGGCCCTGCAAGGTGCCCTGCTGTGCA  
 GCAGCGCCATCCTGAAGCGGAAGTGTACTCAGACCTTAAAGATCTTATTCTAGGATCCGGGCACAGAA  
 GAAAAAGAAAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209800 representing NM\_017750  
 Red=Cloning site Green=Tags(s)

MWLPLVLLAVLLAVLCKVYLGLFSGSSPNPFSQVDRKPPAPLVDKEARKKVLKQAFSANQVPEKLDV  
 VVIGSGFGGLAAAAILAKAGKRVLVLEQHTKAGGCCHTFKNGLEFDTGIHYIGRMEEGSIGRFILDQIT  
 EGQLDWAPLSSPFDIMVLEGPNGRKEYPMYSGEKAYIQGLKEKFPQEEAIDKYIKLVKVVSSGAPHAIL  
 LKFLPLPVVQLLDRCLLTRFSPFLQASTQSLAEVLQQLGASSELQAVLSYIFPTYGVTPNHSFMSHAL  
 LVNHMKGGFYPRGSSSEIAFHITPVIQRAGGAVLTKATVQSVLLDSAGKACGVSVKKGHELVNIYCPIV  
 VSNAGLFNTYEHLLPGNARCLPGVKQLGTVRPLGMTSVFICLRGKEDLHLPSTNYYYVYDMDQAM  
 ERYVSMPREEAAEHIPLFFAFPSAKDPTWEDRFPRSTMIIML IPTAYEWFEEWQAEKKGKRGSDYETFK  
 NSFVEMSVVLKLPQLEKVESVTAGSPLTNQFYLAAPRGACYGADHDLGRLHPCVMASLRAQSPIN  
 LYLTGQDIFTCLVGLQGALLCSSAILKRNLYSDLKNLDSRIRAQKKKN

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8120\\_d08.zip](https://cdn.origene.com/chromatograms/mk8120_d08.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_017750

ORF Size: 1830 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\\_017750.4](#)

RefSeq Size: 3328 bp

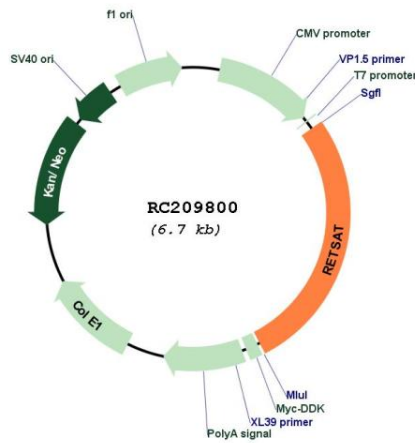
RefSeq ORF: 1833 bp

Locus ID: 54884

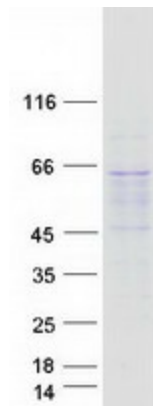
UniProt ID: [Q6NUM9](#)

<b>Cytogenetics:</b>	2p11.2
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Retinol metabolism
<b>MW:</b>	67.3 kDa
<b>Gene Summary:</b>	Catalyzes the saturation of all-trans-retinol to all-trans-13,14-dihydroretinol. Does not exhibit any activity toward all-trans-retinoic acid, nor 9-cis, 11-cis or 13-cis-retinol isomers. May play a role in the metabolism of vitamin A. Independently of retinol conversion, may regulate liver metabolism upstream of MLXIPL/ChREBP. May play a role in adipocyte differentiation. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC209800



Coomassie blue staining of purified RETSAT protein (Cat# [TP309800]). The protein was produced from HEK293T cells transfected with RETSAT cDNA clone (Cat# RC209800) using MegaTran 2.0 (Cat# [TT210002]).