

Product datasheet for **RC200480**

DHCR7 (NM_001360) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DHCR7 (NM_001360) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DHCR7
Synonyms:	SLOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200480 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGCAAAATCGCAACCCAACATTCCAAAGCCAAGAGTCTAGATGGCGTCACCAATGACAGAACCG
 CATCTCAAGGGCAGTGGGGCCGTGCCTGGGAGGTGGACTGGTTTTCACTGGCGAGCGTCATCTTCTACT
 GCTGTTCCGCCCTTCATCGTCTACTACTTCATCATGGCTTGTGACCAGTACAGCTGCGCCCTGACCGGC
 CCTGTGGTGGACATCGTCACTGGACATGCTCGGCTCTCGGACATCTGGGCAAGACTCCACCTATAACGA
 GGAAAGCCGCCAGCTCTATACCTGTGGGTACCTTCCAGGTGCTTCTGTACACGTCTCTCCCTGACTT
 CTGCCATAAGTTTCTACCCGGCTACGTAGGAGGCATCCAGGAGGGGGCCGTGACTCCTGCAGGGTGTG
 AACAGTATCAGATCAACGGCTGCAAGCCTGGCTCCTCACGCACCTGCTCTGGTTTGCAAACGCTCATC
 TCCTGTCTGGTCTCGCCACCATCATCTTCGACAACCTGGATCCCACTGCTGTGGTGCAGCAACATCCT
 TGGCTATGCCGTCTCCACCTTCGCCATGGTCAAGGGCTACTTCTCCCCACCAGCGCCAGAGACTGCAAA
 TTCACAGCAATTTCTTTTACAACCTACATGATGGGCATCGAGTTTAAACCTCGGATCGGGAAGTGGTTTG
 ACTTCAAGCTGTTCTTCAATGGGCGCCCGGGATCGTCGCCTGGACCCTCATCAACCTGTCTTCGCAGC
 GAAGCAGCGGGAGCTCCACAGCCATGTGACCAATGCCATGGTCTGGTCAACGTCTGCAGGCCATCTAC
 GTGATTGACTTCTTCTGGAACGAAACCTGGTACCTGAAGACCAATTGACATCTGCCATGACCACTTCGGGT
 GGTACCTGGGCTGGGGCGACTGTGTCTGGCTGCCTTATCTTTACACGCTGCAGGGTCTGTACTTGGTGTA
 CCACCCCGTGCAGCTGTCCACCCCGCACGCCGTGGGCGTCTGCTGCTGGGCTGGTGGGCTACTACATC
 TTCCGGGTGGCCAACCACAGAAGGACCTGTTCCGCCGACGGATGGGCGCTGCCTCATCTGGGGCAGGA
 AGCCCAAGGTCAATCGAGTCTCTACACATCCGCCGACGGGACAGGACACCACAGCAAGTCTGTGGTGC
 GGGCTTCTGGGGCGTGGCCCGCCACTTCAACTAGCTCGGCGACCTGATGGGACGCTGGCTACTGCCTG
 GCCTGTGGCGGGCCACCTGCTGCCCTACTTCTACATCATCTACATGGCCATCCTGCTGACCCACCGCT
 GCCTCCGGGACGAGCACCCTGCGCCAGCAAGTACGGCCGGGACTGGGAGCGCTACACCGCCGAGTGCC
 TTACCGCTGCTGCCTGGAATCTTC

ACGGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200480 protein sequence
 Red=Cloning site Green=Tags(s)

MAAKSQPNIPKAKSLDGVTDNRDASQQQWGRAWEVDWFLASVIFLLLFAPFIVYFIMACDQYSCALTG
 PVVDIVTGHARLSDIWAKTPPIRKAALYTLWVTFQVLLYTSPLPDFCHKFLPGYVGGIIEGAVTPAGVV
 NKYQINGLQAWLLTHLLWFANAHLISWFSPTIIFDNWIPLLWCANILGYAVSTFAMVKGYFFPTSARDCK
 FTGNFFYNYMMGIEFNPRIGKWFDFKLFNRPVIGVAVTLINLSFAAQRELHSHVTNAMVLVNVLQAIY
 VIDFFWNETWYLKTIIDHDFGWYLGWDCVWLPYLYTLQGLYLVYHPVQLSTPHAVGVLLGLVGYI
 FRVANHQDLFRRTDGRCLIWGRPKVIECSYTSADGQRHHSKLLVSGFWGVARHFNYVDLMLGSLAYCL
 ACGGGHLLPYFYIYMAILLTHRCLRDEHRCASKYGRDWERYTAAPYRLLPGIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6081_c06.zip

Restriction Sites:

Sgfl-MluI

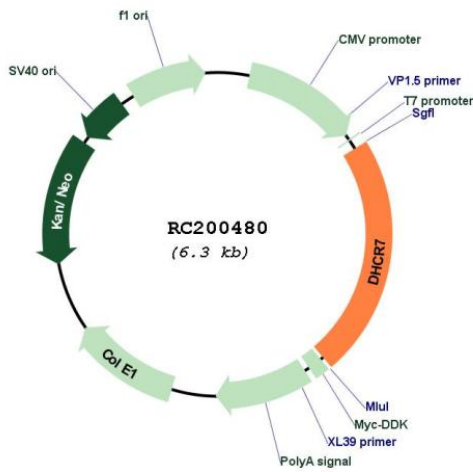
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

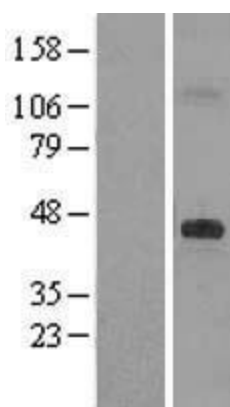
Plasmid Map:



ACCN:	NM_001360
ORF Size:	1425 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:	<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:	NM_001360.3
RefSeq Size:	2665 bp
RefSeq ORF:	1428 bp
Locus ID:	1717
UniProt ID:	Q9UBM7
Cytogenetics:	11q13.4
Domains:	ERG4_ERG24
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, Steroid biosynthesis
MW:	54.5 kDa

Gene Summary:

This gene encodes an enzyme that removes the C(7-8) double bond in the B ring of sterols and catalyzes the conversion of 7-dehydrocholesterol to cholesterol. This gene is ubiquitously expressed and its transmembrane protein localizes to the endoplasmic reticulum membrane and nuclear outer membrane. Mutations in this gene cause Smith-Lemli-Opitz syndrome (SLOS); a syndrome that is metabolically characterized by reduced serum cholesterol levels and elevated serum 7-dehydrocholesterol levels and phenotypically characterized by cognitive disability, facial dysmorphism, syndactyly of second and third toes, and holoprosencephaly in severe cases to minimal physical abnormalities and near-normal intelligence in mild cases. Alternative splicing results in multiple transcript variants that encode the same protein.[provided by RefSeq, Aug 2009]

Product images:

Western blot validation of overexpression lysate (Cat# [LY431950]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228922] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).