

Product datasheet for **RC200460**

Hydroxysteroid (17 beta) Dehydrogenase 4 (HSD17B4) (NM_000414) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hydroxysteroid (17 beta) Dehydrogenase 4 (HSD17B4) (NM_000414) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hydroxysteroid (17 beta) Dehydrogenase 4
Synonyms:	DBP; MFE-2; MFP-2; MPF-2; PRLTS1; SDR8C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC200460 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGCTCACCGCTGAGTTTCGACGGGCGGGTGGTACTGGTCACCGGCGGGGGCAGGATTGGGCCGAG
 CCTATGCCCTGGCTTTTGCAGAAAGAGGAGCGTTAGTTGTTGTGAATGATTTGGGAGGGACTTCAAAGG
 AGTTGGTAAAGGCTCCTTAGCTGCTGATAAGGTTGTTGAAGAAATAAGAAGGAGAGGTGGAAAAGCAGTG
 GCCAACTATGATTCAGTGAAGAAGGAGAGAAGGTTGTGAAGACAGCCCTGGATGCTTTTGAAGAATAG
 ATGTTGTGGTCAACAATGCTGGAATTCGAGGGATCGTTCCTTTGCTAGGATAAGTGATGAAGACTGGGA
 TATAATCCACAGAGTTTATTGCGGGGTTCAATCCAAGTGACACGGGCAGCATGGGAACACATGAAGAAA
 CAGAAGTATGGAAGGATTATTATGACTTCATCAGCTTCAGGAATATATGGCAACTTTGGCCAGGCCAATT
 ATAGTGTGCAAAGTTGGGCTTCTGGGCTTGCAAATCTCTTGCAATTGAAGGCAGGAAAAGCAACAT
 TCATTGTAACACCATTGCTCCTAATGCGGGATCACGGATGACTCAGACAGTTATGCCTGAAGATCTTGTG
 GAAGCCCTGAAGCCAGAGTATGTGGCACCTCTGTCTTTGGCTTTGTCACGAGAGTTGTGAGGAGAATG
 GTGGCTTGTGAGGTTGGAGCAGGATGGATTGAAAAATTACGCTGGGAGCGGACTCTTGGAGCTATTGT
 AAGACAAAAGAATCACCAATGACTCCTGAGGCAGTCAAGGCTAACTGGAAGAAGATCTGTGACTTTGAG
 AATGCCAGCAAGCCTCAGAGTATCCAAGAATCAACTGGCAGTATAATTGAAGTTCGAGTAAAAATAGATT
 CAGAAGGAGGAGTTTCAGCAAATCATACTAGTCGTGCAACGTCTACAGCAACATCAGGATTTGCTGGAGC
 TATTGGCCAGAACTCCCTCCATTTTCTATGCTTACGGAAGTGAAGCTATTATGTATGCCCTTGGAA
 TGGGGAGCGTCAATCAAGGATCCAAAAGATTTGAAATTTATTTATGAAGGAAGTTCTGATTTCTCCTGTT
 TGCCACCTTCGGAGTTATCATAGGTGAGAACTATGATGGGTGGAGGATTAGCAGAAATTCCTGGACT
 TTCAATCAACTTTGCAAAGGTTCTTATGGAGAGCAGTACTTAGAGTTATATAAACCACTTCCCAGAGCA
 GGAAAATTAATAATGTGAAGCAGTTGTTGCTGATGCTCTAGATAAAGGATCCGGTGTAGTGATTATTATGG
 ATGTCTATTCTTATTCTGAGAAGGAACCTTATATGCCACAATCAGTTCTCTCTCTTTCTTGTGGCTCTGG
 AGGCTTTGGTGGAAAACGGACATCAGACAAAGTCAAGGTAGCTGTAGCCATACCTAATAGACCTCCTGAT
 GCTGTACTTACAGATACCACCTCTTAATCAGGCTGCTTTGTACCGCCTCAGTGGAGACTGGAATCCCT
 TACACATTGATCCTAACTTTGCTAGTCTAGCAGGTTTTGACAAGCCCATATTACATGGATTATGTACATT
 TGGATTTCTGCCAGGCGTGTGTACAGCAGTTTGCAGATAATGATGTGTCAAGATTCAAGGCAATTAAG
 GCTCGTTTTGCAAACCAGTATATCCAGGACAACTCTACAACTGAGATGTGGAAGGAAGGAAACAGAA
 TTCATTTTCAAACCAAGTCCAAGAAACTGGAGACATTGTCATTTCAAATGCATATGTGGATCTTGCAAC
 AACATCTGGTACTTCAGCTAAGACACCCTCTGAGGGCGGGAAGCTTCAGAGTACCTTTGTATTTGAGGAA
 ATAGGACGCCGCCTAAAGGATATTGGGCTGAGGTGGTGAAGAAAGTAAATGCTGTATTTGAGTGGCATA
 TAACCAAAGGCGGAAATATTGGGCTAAGTGGACTATTGACCTGAAAAGTGGTTCTGGAAAAGTGTACCA
 AGGCCCTGCAAAGGTGCTGCTGATACAACAATCATACTTTCAGATGAAGATTTTCATGGAGGTGGTCTG
 GGCAAGCTTGACCCTCAGAAGGCATTCTTATGTCAGGCTGAAGGCCAGAGGGAACATCATGCTGAGCC
 AGAAACTTCAGATGATTCTTAAAGACTACGCCAAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200460 protein sequence
 Red=Cloning site Green=Tags(s)

MGSPFRFDGRVVLVTGAGAGLGRAYALFAAERGAALVVVNDLGGDFKGVGKGSAAADKVVVEIIRRGGKAV
 ANYDSVEEGEKVVKTALDAFGRIDVVVNNAGILRDRSFARISDEDWDIIHRVHLRGSFQVTRAAWEHMKK
 QKYGRIIMTSSASGIYGNFGQANYSAAKLGLLGLANSLAIEGRKSNIHCNTIAPNAGSRMTQTVMPEDLV
 EALKPEYVAPLVLWLCHEESCEENGGLFEVGAGWIGKLRWERTLGAIVRQKNHPMTPEAVKANWKKICDFE
 NASKPQSIQESTGSIIEVLKIDSEGGVSANHTSRATSTATSGFAGAIGQKLPFFSYAYTELEAIMYALG
 VGASIKDPKDLKFIYEGSSDFSLPTFGVIGQKSMGGGLAEIPGLSINFKVLHGEQYLELYKPLPRA
 GKLEAVVADVLDKSGGVVIMDVYSYSEKELICHNQFSLFLVSGGGFGKRTSDKVKVAVAIIPNRPPD
 AVLTDTTSLNQAALYRLSGDWNPLHIDPNFASLAGFDKPIHLGLCTFGFSARRVLQQFADNDVSRFKAIAK
 ARFAKPVYPGQTLQTEMWKEGNRIHFQTKVQETGDIVISNAYVDLAPTSGETSAKTPSEGGKLQSTFVFEE
 IGRRLKDIGPEVVKVNAVFEWHITKGGNIGAKWTIDLKSGSGKVYQGPAGKAADTTIILSDEDFMEVVL
 GKLDLPQKAFFSGRLKARGNIMLSQKLQMLKDYAKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6080_d05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_000414

ORF Size: 2208 bp

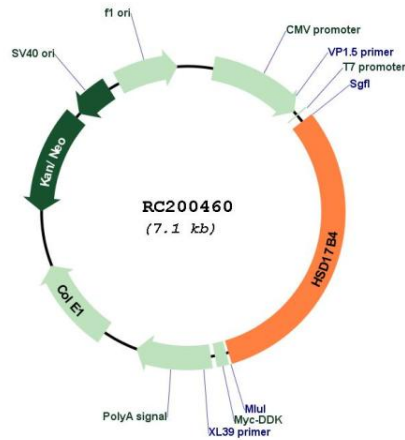
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

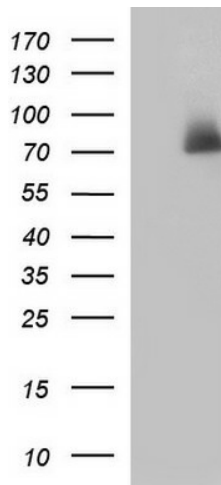
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000414.4
RefSeq Size:	2710 bp
RefSeq ORF:	2211 bp
Locus ID:	3295
UniProt ID:	P51659
Cytogenetics:	5q23.1
Domains:	adh_short, MaoC_dehydratas, SCP2
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Primary bile acid biosynthesis
MW:	79.7 kDa
Gene Summary:	The protein encoded by this gene is a bifunctional enzyme that is involved in the peroxisomal beta-oxidation pathway for fatty acids. It also acts as a catalyst for the formation of 3-ketoacyl-CoA intermediates from both straight-chain and 2-methyl-branched-chain fatty acids. Defects in this gene that affect the peroxisomal fatty acid beta-oxidation activity are a cause of D-bifunctional protein deficiency (DBPD). An apparent pseudogene of this gene is present on chromosome 8. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, May 2014]

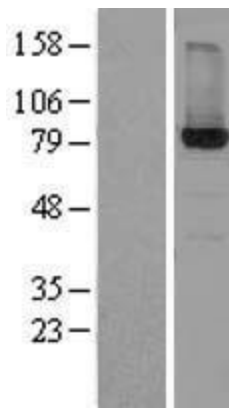
Product images:



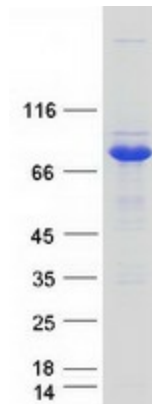
Circular map for RC200460



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HSD17B4 (Cat# RC200460, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HSD17B4(Cat# [TA507028]). Positive lysates [LY424737] (100ug) and [LC424737] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424737]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200460 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HSD17B4 protein (Cat# [TP300460]). The protein was produced from HEK293T cells transfected with HSD17B4 cDNA clone (Cat# RC200460) using MegaTran 2.0 (Cat# [TT210002]).