

## Product datasheet for **RC233098**

### Hydroxysteroid (17 beta) Dehydrogenase 4 (HSD17B4) (NM\_001199292) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hydroxysteroid (17 beta) Dehydrogenase 4 (HSD17B4) (NM_001199292) 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)



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**ORF Nucleotide Sequence:**

>RC233098 representing NM\_001199292  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCTCACCGCTGAGTTTCGACGGGCGGGTGGTACTGGTCACCGGCGGGGGCAGTGAATGATTTGG  
 GAGGGGACTTCAAAGGAGTTGGTAAAGGCTCCTTAGCTGCTGATAAGGTTGTTGAAGAAAATAAGAAGGAG  
 AGTGGAAAAGCAGTGGCCAACATGATTCACTGGAAGAAGGAGAGAAGGTTGTGAAGACAGCCCTGGAT  
 GCTTTTGAAGAAATAGATGTTGTGGTCAACAATGCTGGAATTCGAGGGATCGTTCCTTTGCTAGGATAA  
 GTGATGAAGACTGGGATATAATCCACAGAGTTCATTTGCGGGGTTCAATCCAAGTGACACGGGCAGCATG  
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 AGTTGTGAGGAGAATGGTGGCTTGTGGAGTTGGAGCAGGATGGATTGGAATAACGCTGGGAGCGGA  
 CTCTTGGAGCTATTGTAAGACAAAAGAATCACCAATGACTCCTGAGGCAGTCAAGGCTAACTGGAAGAA  
 GATCTGTGACTTTGAGAAATGCCAGCAAGCCTCAGAGTATCCAAGAATCACTGGCAGTATAATTGAAGTT  
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 CAGGATTTGCTGGAGCTATTGGCCAGAACTCCCTCCATTTTCTATGCTTATACGGAAGTGAAGCTAT  
 TATGATGCCCTTGGAGTGGGAGCGTCAATCAAGGATCCAAAAGATTTGAAATTTATTTATGAAGGAAGT  
 TCTGATTTCTCTGTTTCCACCTTCGGAGTTATCATAGGTGAGAAATCTATGATGGGTGGAGGATTAG  
 CAGAAATTCCTGGACTTTCAATCAACTTTGCAAAGGTTCTCATGGAGAGCAGTACTTAGAGTTATAAA  
 ACCACTTCCCAGAGCAGGAAAATTAATAATGTGAAGCAGTTGTTGCTGATGCTAGATAAAGGATCCGGT  
 GTAGTGATTATTATGGATGTCTATTCTTATTCTGAGAAGGAAGTATATGCCACAATCAGTTCTCTCTCT  
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 TAATAGACCTCCTGATGCTGACTTACAGATACCACCTCTCTAATCAGGCTGCTTTGTACCGCCTCAGT  
 GGAGACTGGAATCCCTTACACATTGATCCTAATTTGCTAGTCTAGCAGGTTTTGACAAGCCCATATTAC  
 ATGGATTATGTACATTTGGATTTTCTGCCAGGCGTGTGTACAGCAGTTTGCAGATAATGATGTGTCAAG  
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 AAGGAAGGAAACAGAATTCATTTCAAACCAAGTCCAAGAACTGGAGACATTGTCATTTCAAATGCAT  
 ATGTGGATCTTGACCAACATCTGGTACTTCAGCTAAGACACCCTCTGAGGGCGGGAAGCTTCAGAGTAC  
 CTTTGTATTTGAGGAAATAGGACGCCGCCTAAAGGATATTGGGCCTGAGGTGGTGAAGAAAGTAAATGCT  
 GTATTTGAGTGGCATATAACCAAAGCGGAAATATTGGGGCTAAGTGGACTATTGACCTGAAAAGTGGTT  
 CTGGAAAAGTGTACCAAGGCCCTGCAAAGGTGCTGCTGATACAACAATCATACTTTAGATGAAGATTT  
 CATGGAGGTGGTCTGGCAAGCTTGACCCTCAGAAGGCATTCTTAGTGGCAGGCTGAAGGCCAGAGGG  
 AACATCATGCTGAGCCAGAACTTCAGATGATTCTTAAAGACTACGCCAAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC233098 representing NM\_001199292  
Red=Cloning site Green=Tags(s)

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MGSP LRF DGRV LVTGAGAVNDLGGDFKGVGKGS LAADKVV E E IRRRGGKAVANYDSV E E G E K V V K T A L D
A F G R I D V V V N N A G I L R D R S F A R I S D E D W D I I H R V H L R G S F Q V T R A A W E H M K K Q K Y G R I I M T S S A S G I Y G N
F G Q A N Y S A A K L G L L G L A N S L A I E G R K S N I H C N T I A P N A G S R M T Q T V M P E D L V E A L K P E Y V A P L V L W L C H E
S C E E N G G L F E V G A G W I G K L R W E R T L G A I V R Q K N H P M T P E A V K A N W K K I C D F E N A S K P Q S I Q E S T G S I I E V
L S K I D S E G G V S A N H T S R A T S T A T S G F A G A I G Q K L P P F S Y A Y T E L E A I M Y A L G V G A S I K D P K D L K F I Y E G S
S D F S C L P T F G V I I G Q K S M M G G L A E I P G L S I N F A K V L H G E Q Y L E L Y K P L P R A G K L K C E A V V A D V L D K G S G
V V I I M D V Y S Y S E K E L I C H N Q F S L F L V G S G G F G G K R T S D K V K V A V A I P N R P P D A V L T D T T S L N Q A A L Y R L S
G D W N P L H I D P N F A S L A G F D K P I L H G L C T F G S A R R V L Q Q F A D N D V S R F K A I K A R F A K P V Y P G Q T L Q T E M W
K E G N R I H F Q T K V Q E T G D I V I S N A Y V D L A P T S G T S A K T P S E G G K L Q S T F V F E E I G R R L K D I G P E V V K V N A
V F E W H I T K G G N I G A K W T I D L K S G S G K V Y Q G P A K G A A D T T I I L S D E D F M E V V L G K L D P Q K A F F S G R L K A R G
N I M L S Q K L Q M I L K D Y A K L
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001199292

**ORF Size:** 2154 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\\_001199292.2](#)

**RefSeq Size:** 2656 bp

**RefSeq ORF:** 2157 bp

**Locus ID:** 3295

**UniProt ID:** [P51659](#)

**Cytogenetics:** 5q23.1

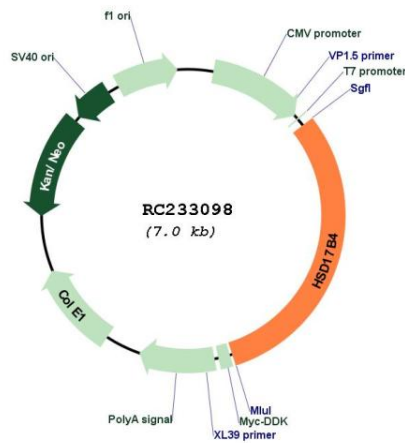
**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Primary bile acid biosynthesis

**MW:** 78.3 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 RC233098