

Product datasheet for **RG233098**

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:	TurboGFP
Symbol:	HSD17B4
Synonyms:	DBP; MFE-2; MFP-2; MPF-2; PRLTS1; SDR8C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG233098 representing NM_001199292
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCTCACCGCTGAGTTTCGACGGGCGGGTGGTACTGGTCACCGCGCGGGGGCAGTGAATGATTTGG
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

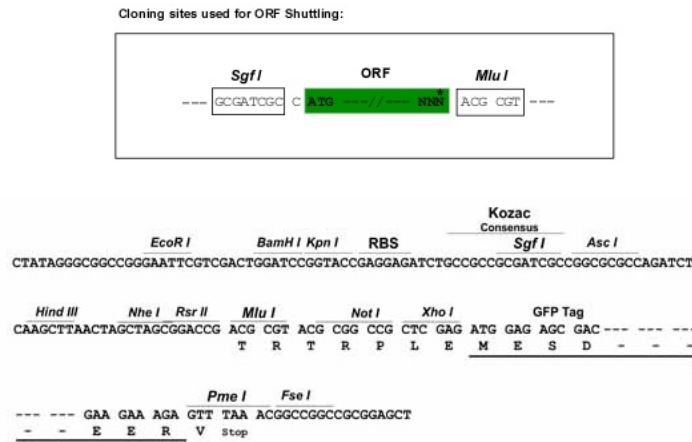
Protein Sequence: >RG233098 representing NM_001199292
 Red=Cloning site Green=Tags(s)

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 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 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
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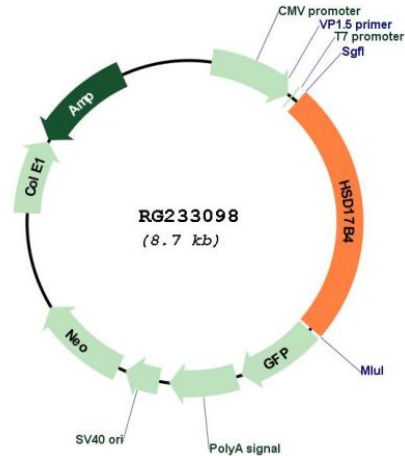
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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

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]