

## Product datasheet for **RG239030**

### Hydroxysteroid (17 beta) Dehydrogenase 4 (HSD17B4) (NM\_001292028) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hydroxysteroid (17 beta) Dehydrogenase 4 (HSD17B4) (NM_001292028) 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:**

>RG239030 representing NM\_001292028.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAGAAACAGAAGATTATTATGACTTCATCAGCTTCAGGAATATATGGCAACTTTGGCCAGGCCAAT
TATAGTCTGCAAAGTTGGGTCTTCTGGCCTTGCAAATCTCTTGAATTGAAGGCAGGAAAAGCAAC
ATTCATTGTAACACCATTGCTCCTAATGCGGGATCACGGATGACTCAGACAGTTATGCTGAAGATCCTT
GTGGAAGCCCTGAAGCCAGAGTATGTGGCACCTCTTGTCTTTGGCTTTGTCACGAGAGTTGTGAGGAG
AATGGTGGCTTGTGTTGAGGTTGGAGCAGGATGGATTGGAAAATTACGCTGGGAGCGGACTCTTGAGCT
ATTGTAAGACAAAAGAATCACCCAATGACTCCTGAGGCAGTCAAGGCTAACTGGAAGAAGATCTGTGAC
TTTGAAGATGCCAGCAAGCCTCAGAGTATCCAAGAATCAACTGGCAGTATAATTGAAGTTCTGAGTAAA
ATAGATTCAGAAGGAGGAGTTTCAGCAAATCATACTAGTCGTGCAACGTCTACAGCAACATCAGGATTT
GCTGGAGCTATTGGCCAGAACTCCCTCCATTTTCTTATGCTTATACGGAAGTGGAGCTATTATGTAT
GCCCTTGAGTGGGAGCGTCAATCAAGGATCCAAAAGATTTGAAATTTATTTATGAAGGAAGTTCTGAT
TTCTCCTGTTTGCCACCTTCGGAGTTATCATAGGTGAGAAATCTATGATGGGTGGAGGATTAGCAGAA
ATTCCTGGACTTTCAATCAACTTTGCAAAGGTTCTTCATGGAGAGCAGTACTTAGAGTTATATAACCA
CTTCCCAGAGCAGGAAAATAAAATGTGAAGCAGTTGTTGCTGATGTCTAGATAAAGGATCCGGTGTA
GTGATTATTATGGATGTCTATTCTTATTCTGAGAAGGAACTTATATGCCACAATCAGTTCTCTCTTTT
CTTGTGGCTCTGGAGGCTTTGGTGGAAAACGGACATCAGACAAAGTCAAGGTAGCTGTAGCCATACCT
AATAGACCTCCTGATGCTGTACTTACAGATACCACCTCTTAAATCAGGCTGCTTTGTACCGCCTCAGT
GGAGACTGGAATCCCTTACACATTGATCCTAAGTTGCTAGTCTAGCAGGTTTGGACAAGCCCATATTA
CATGGATTATGTACATTTGGATTTTCTGCCAGGCGTGTGTACAGCAGTTTGCAGATAATGATGTGTCA
AGATTCGAAGGCAATTAAGGCTCGTTTTGCAAAAACAGTATATCCAGGACAAACTTACAAAAGTGAAGT
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GCATATGTGGATCTTGACCAACATCTGGTACTTCAGCTAAGACACCCTCTGAGGGCGGGAAGCTTCAG
AGTACCTTTGATTTGAGGAAAATAGGACGCCGCTAAAGGATATTGGGCCTGAGGTGGTGAAGAAAGTA
AATGCTGTATTTGAGTGGCATATAACCAAAGCGGAAATATTGGGGCTAAGTGGACTATTGACCTGAAA
AGTGGTTCTGAAAAGTGTACCAAGGCCCTGAAAAGGTGCTGCTGATACAACAATCATACTTTGAGT
GAAGATTTGATGGAGGTGCTGGGCAAGCTTACCCTCAGAAGGCATTCTTTAGTGGCAGGCTGAAG
GCCAGAGGGAACATCATGCTGAGCCAGAACTTCAGATGATTCTTAAAGACTACGCCAAGCTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG239030  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MKKQKIIMTSSASGIYGNFQANYSAAKLGLLGLANSLAIEGRKSNHCNTIAPNAGSRMTQVMPEDL
VEALKPEYVAPLVLWLCHESEENGGLFEVGAGWIGKLRWERTLGAIVRQKNHPMTPEAVKANWKKICD
FENASKPQSIQESTGSIIEVLSKIDSEGGVSANHTSRATSTATSGFAGAIGQKLPPFSYAYTELEAIMY
ALGVGASIKDPKDLKFIYEGSSDFSLPTFGVIGQKSMGGGLAEIPGLSINFKVLHGEQYLELYKP
LPRAGKLCFAVADVLDKSGSVVIMDVYSYSEKELICHNQFSLFLVSGGFGGKRTSDKVKVAVAIP
NRPPDAVLTDTTSLNQAALYRLSGDWNPLHIDPNFASLAGFDKPIHLGLCTFGFSARRVLQFADNDVS
RFKAIKARFAKPVYPGQTLQTEMWKEGNRIHFQTKVQETGDIVISNAYVDLAPTSGETSAKTPSEGGKQ
STFVFEEIGRRLKDIGPEVVKVNAVFEWHITKGNIGAKWTIDLKSGSKVYQGPAGKAADTTIILSD
EDFMEVVLGKLDPQKAFFSGRLKARGNIMLSQKLQMLKDYAKL
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

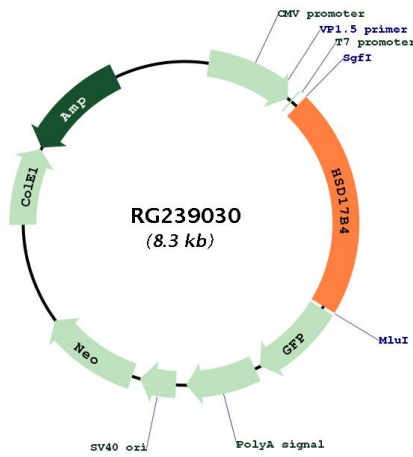
SgfI-MluI

## Cloning Scheme:

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_001292028

ORF Size: 1788 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001292028.2</a>
<b>RefSeq Size:</b>	2835 bp
<b>RefSeq ORF:</b>	1791 bp
<b>Locus ID:</b>	3295
<b>UniProt ID:</b>	<a href="#">P51659</a>
<b>Cytogenetics:</b>	5q23.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Primary bile acid biosynthesis
<b>MW:</b>	65 kDa
<b>Gene Summary:</b>	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]