

Product datasheet for **MG205766**

Hsd3b1 (NM_008293) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hsd3b1 (NM_008293) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hsd3b1
Synonyms:	3-beta-HSD I; D3ErtD383e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205766 representing NM_008293 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGGATGGAGCTGCCTGGTGACAGGAGCAGGAGGGTTTGTGGCCAGAGGATCATCAAGATGTTGG
TGCAGGAGAAAGAACTGCAGGAGGTCAGAGCTCTGGACAAAGTATTCGACCAGAAACCAAGGAGGAATT
CTCCAAGCTGCAGACAAAGACCAAGGTGACAGTGTGGAAAGGAGACATTCTGGATGCCAGTGCCTGAGG
AGAGCCTGCCAGGGCATCTCTGTTGTCATCCACTGCTGCTGTCATTGATGTCACAGGTGTCATCCCA
GGCAGACCATCCTAGATGTCAATCTGAAAGGTACCCAGAACCTATTGGAGGCCTGTGTTCAAGCAAGTGT
GCCAGCCTTCATCTTCTGCAGCTCAGTTGATGCTGCAGGGCCCAACTCGTACAAGAAGATCGTCCTGAAT
GGCCACGAGGAACAGAATCATGAAAGCACATGGTCTGATCCATACCCATACAGCAAAAAGATGGCTGAGA
AGGCAGTACTGGCAGCCAATGGGAGCATGCTGAAAAATGGTGGCACTTTGAATACTTGTGCCTTAAGACC
CATGTACATTTATGGGGAGAGAAGTCCATTTTAAATGCAATAATTAGGGCCCTCAAAAATAAGGGT
ATTCTGTGTGTTACTGGCAAATTCCTCATAGCCAACCCAGTATATGTGGAAAATGTGGCCTGGGCACACA
TTCTGGCAGCCAGGGCCTTCGAGACCCCAAGAAGTCTACAAGCATCCAAGGACAGTTCTACTACATCTC
AGATGACACCCCTCACAAAGCTATGATGATTTAAATTACACCCTGAGTAAGGAATGGGGCTCCGCCCT
AATGCCAGCTGGAGCCTTCTCTGCCCTGCTCTACTGGCTTGCCTTCTGCTGAAACTGTGAGCTTCC
TGCTACGTCCAGTCTACAGGTATAGACCTCTTTAACCGCCACTCGATCACACTGTCAAATAGCACGTT
CACTTTTTCTTACAAGAAAGCTCAGCGAGATCTGGGCTATGAGCCAATTGTCAACTGGGAGGAAGCAAAG
CAGAAAACCTCAGAGTGGATAGGACAATAGTGGAACAGCACAGGGAGATATTGGACACAAAGTGCCAG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG205766 representing NM_008293
Red=Cloning site Green=Tags(s)

MAGWSCLVTGAGGFVQRIKMLVQEKELQEVRLDKVFRPETKEEF SKLQTKTKVTVLEGDILDAQCLR
 RACQGISVVIHTAAVIDVTGVI PRQTILDVNLKGTQNLLEACVQASVPAFIFCSSVDAAGPNSYKKIVLN
 GHEEQNHSTWSDPYYPYSKKMAEKAVLAANGSMLKNGGTLNLCALRPMYIYGERSPFIFNAIRALKNKG
 ILCVTGKFSIANPVYVENVAWAHILAARGLRDPKKSTSIQGQFYIISDDTPHQSYDDLNYTL SKEWGLRP
 NASWSLPLPLLWLAFLLETVSVFLLRPVYRPLFNRSITLSNSTFTFSYKKAQRDLGYEPLVNWEEAK
 QKTSEWIGTIVEQHREILDTKCQ

TRTRPLE - GFP Tag - V

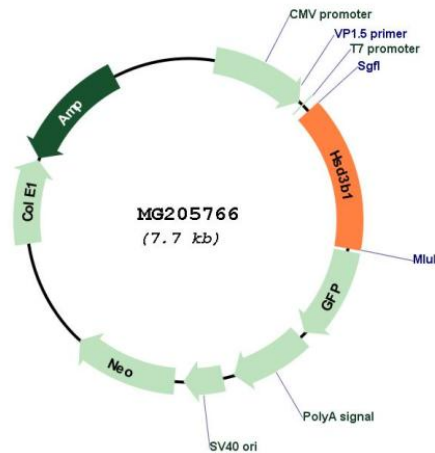
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_008293

ORF Size:	1119 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_008293.2 , NP_032319.1
RefSeq Size:	1853 bp
RefSeq ORF:	1122 bp
Locus ID:	15492
UniProt ID:	P24815
Cytogenetics:	3 42.89 cM
Gene Summary:	A bifunctional enzyme responsible for the oxidation and isomerization of 3beta-hydroxy-Delta(5)-steroid precursors to 3-oxo-Delta(4)-steroids, an essential step in steroid hormone biosynthesis. Specifically catalyzes the conversion of pregnenolone to progesterone, 17alpha-hydroxypregnenolone to 17alpha-hydroxyprogesterone, dehydroepiandrosterone (DHEA) to 4-androstenedione, and androstenediol to testosterone. Additionally, catalyzes the interconversion between 3beta-hydroxy and 3-oxo-5alpha-androstane steroids controlling the bioavailability of the active forms. Specifically converts dihydrotestosterone to its inactive form 5alpha-androstanediol, that does not bind androgen receptor/AR. Also converts androstanedione, a precursor of testosterone and estrone, to epiandrosterone. Expected to use NAD(+) as preferred electron donor for the 3-beta-hydroxy-steroid dehydrogenase activity and NADPH for the 3-ketosteroid reductase activity.[UniProtKB/Swiss-Prot Function]