

## Product datasheet for RN205099

### Hsd3b1 (NM\_001007719) Rat Untagged Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Hsd3b1 (NM\_001007719) Rat Untagged Clone  
 Tag: Tag Free  
 Symbol: Hsd3b1  
 Synonyms: MGC105549  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 Cell Selection: Neomycin  
 Fully Sequenced ORF: >RN205099 representing NM\_001007719  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGCTGGATGGAGCTGCCTGGTGACAGGAGCAGGAGGGTTTGTGGCCAGAGGATCATCCGGATGTTGG  
 TGCAGGAGAAAGAACTGCAGGAGGTGAGGCTCTGGACAAAGTCTCAGACCAGAAACCAAGGAGGAATT  
 CTCTAAGCTGCAGACAAAGGCCAAGGTGACAATGTTAGAAGGAGATATTCTGGATGCCAGTACCTGAGG  
 AGAGCGTGCCAGGGCATCTCTGTTGTATCCACACCGCTGCTGTATTGATGTCTCACATGTCTACCCCA  
 GGCAGACCATCCTAGATGTCAATCTGAAAGGTACCCAGAACATATTGGAGGCCTGCGTCGAAGCCAGTGT  
 GCCAGCCTTCTACTGACGACAGTTGACGTTGCAGGGCCCAACTCCTACAAGAAGATCATCCTGAAT  
 GGCCATGAGGAAGAGCATCATGAAAGCAGATGGTCAGATGCATACCCATACAGCAAAAGGATGGCCGAGA  
 AGGCAGTGTGGCAGCCAATGGGAGCATCCTGAAAAATGGTGGCACACTGCATACTTGTGCCTTAAGGCC  
 CATGTACATTTATGGGGAGAGAAGTCCATTCTTTCTGTATGATACTTGCAGCCCTCAAAAATAAGGGT  
 ATTCTGAATGTTACTGGCAAATCTCCATAGCCAATCCAGTGTATGTAGGCAATGTGGCCTGGGCACATA  
 TTCTGGCTGCCAGGGCCTTCGAGACCCCAAGAAGTCAAAAATGTCCAAGGACAGTTCTACTACATCTC  
 AGATGACACCCCTCACCAAGCTATGATGATTTAAATTGACCCCTGAGCAAGGAATGGGGCCTCCGCCTT  
 GATTCCAGCTGGAGCCTTCTCTGCCCTGCTCTACTGGCTTGCCTTCTGCTGAAACTGTGAGCTTCC  
 TGCTGCGTCCATTTTACAACATAGGCCACCTTTAACTGCCACTTGGTCACTGTCAAATAGCAAGTT  
 CACTTTCTCTACAAGAAAGCTCAGAGAGATCTGGGCTATGTGCCACTTGTGAGTGGGAGGAGCAAG  
 CAGAAAACCTCGGAGTGGATCGGGACACTAGTGGAGCAGCACAGGGAGACTGGACACAAAGTCTCAGT  
 GA

ACGCGTACGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul



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<b>ACCN:</b>	NM_001007719
<b>Insert Size:</b>	1122 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001007719.3</a></u> , <u><a href="#">NP_001007720.3</a></u>
<b>RefSeq Size:</b>	1640 bp
<b>RefSeq ORF:</b>	1122 bp
<b>Locus ID:</b>	360348
<b>UniProt ID:</b>	<u><a href="#">P22071</a></u>
<b>Cytogenetics:</b>	2q34
<b>Gene Summary:</b>	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, dehydroepiandrosterone (DHEA) to 4-androstenedione, and androstenediol to testosterone (PubMed:1537836, PubMed:1985917). 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 (PubMed:1537836). Expected to use NAD(+) as preferred electron donor for the 3beta-hydroxy-steroid dehydrogenase activity and NADPH for the 3-ketosteroid reductase activity (Probable).[UniProtKB/Swiss-Prot Function]