

## Product datasheet for **RR205099L4V**

### Hsd3b1 (NM\_001007719) Rat Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Hsd3b1 (NM_001007719) Rat Tagged ORF Clone Lentiviral Particle
Symbol:	Hsd3b1
Synonyms:	MGC105549
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001007719
ORF Size:	1119 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RR205099).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_001007719.3</a> , <a href="#">NP_001007720.3</a>
RefSeq Size:	1640 bp
RefSeq ORF:	1122 bp
Locus ID:	360348
UniProt ID:	<a href="#">P22071</a>
Cytogenetics:	2q34



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**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, 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-androstenediol, that does not bind androgen receptor/AR. Also converts androstenedione, 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]