

Product datasheet for **SC119873**

HSD17B1 (NM_000413) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HSD17B1 (NM_000413) Human Untagged Clone
Tag:	Tag Free
Symbol:	HSD17B1
Synonyms:	17-beta-HSD; 20-alpha-HSD; E2DH; EDH17B2; EDHB17; HSD17; SDR28C1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119873 sequence for NM_000413 edited (data generated by NextGen Sequencing)

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ATGGCCCCGACCGTGGTGTCTCATCACCGGCTGTTCTCGGGCATCGGCCTGCACTTGGCC
GTACGTCTGGCTTCAGATCCATCCCAGAGCTTCAAAGTGTATGCCACGTTGAGGGACCTG
AAAACACAGGGCCGGCTGTGGGAGGCGGCCCGGGCCCTGGCATGCCCTCCGGGATCCCTG
GAGACGTTGCAGCTGGACGTAAGGGACTCAAATCCGTGGCCGCTGCCCGGGAACGCGTG
ACTGAGGGCCGCTGGACGTGCTGGTGTGTAACGCAGGCCTGGGCCTGCTGGGGCCGCTG
GAGGCGCTGGGGGAGGACGCCGTGGCCTCTGTGCTGGACGTGAATGTAGTAGGGACTGTG
CGGATGCTGCAGGCCTTCTGCCAGACATGAAGAGGCGCGTTCCGGACGCGTGTGGTG
ACCGGGAGCGTGGGAGGATTGATGGGGCTGCCTTTCAATGACGTTTATTGCGCCAGCAAG
TTCGCGCTCGAAGGCTTATGCGAGAGTCTGGCGGTTCTGCTGCTGCCCTTGGGGTCCAC
TTGAGCCTGATCGAGTGCAGCCAGTGCACACCGCCTTCATGGAGAAGGTGTTGGGCAGC
CCAGAGGAGGTGCTGGACCGCACGGACATCCACACCTTCCACCGCTTCTACCAATACCTC
GCCACAGCAAGCAAGTCTTTCGCGAGGCGGCGCAGAACCCTGAGGAGGTGGCGGAGGTC
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CTGCCCTGCTGCGGATGCGCCTGGACGACCCAGCGGCTCCAACACTACGTACCAGCCATG
CACCGGAAGTGTTCGGCGACGTTCCGGCAAAGGCCGAGGCTGGGGCCGAGGCTGGGGG
GGGGCCGGCCTGGGGCAGAGGACGAGGCCGGGCGCGGTGCGGTGGGGGACCTGAGCTC
GGCGATCTCCGGCCGCCCGCAGTAA

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Clone variation with respect to NM_000413.2



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000413 unedited
 ATAATTTGTAATACGACTCACTATAGGCGGCCGCGACATTCGCACCAGCTACAACCCACA
 ATCAGATTATAGTCTGCCTTGGGCAGCTGAAAAAGGACAGGAGAAGGTCAGAGAGACGA
 AAGGCTGTTTTTTGAGGCCTGAGGCACCCCAACATGACAACGTAAGACTGTAACCATGGT
 CATGTGAGTTATGAGCTAGGAACCCTGGACGAAACCAGCACATATAACAATCATCTCCCAA
 CTCCCAACGCCTTTACTTTCACAAGCCTCTGCAGCAAACCTGCGGCTACTATAATCGCTCC
 TGTGGCACATAGGCATACCCAGGGGAATCTGCCAGGGGGCCACTCTGTGCCACGTGGG
 AACCCACACCTGCTTGTAAAGCCTCCCTCCCTCTGACCAGCAACCAGGACAGTTTGTG
 TTCCAAGCAGTGGGCTCATGTCTGTTTTGGCTCAAACAGGGTGGGGAGAAGCGGGCCAG
 GGACCCGCATGAAGGCTTATCCTTGAGAATGCGTGGGAAACACAACAAGGGTGGGGGCC
 CGCATGCGGNGCGGGGGAATCATGTGATATCAAGCCCAGAGCCCAGCCTCTCCCAACA
 GTCTACCATGGCCGACCGTGGTGTCTATCACCAGGCTTCTCGGGCATCGGCCTGC
 ACTTGCCGTACGTCTGGCTTCAAGAACATCCCAGAGCTTCAAAGTGTATGCCACGTTGA
 GGGACCTGAAACACANNNGCCGCTGTGGGATGCGGNCCNGGCCCTGCATGCCTNCGGNAT
 CCCTGAAACGTGACNCTGACGTAAGGACTCANAATCGTGNCGCTGCCAGGAATCCTGAC
 TGAGGCGNNTGACTGCTTGTGNAACCAAGCTGGCCTGCTGGGCCCTGAAGCCTTGGG
 GAAAGAACCTGGCTCTGCCTGAACATAATNNANNNAGACTGGCGAATCTGAAGCTTCTGC
 ACATAAAAAAGCCGTGGGAACANNTTTGACCGAAACGGGAGAAAATTA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000413 unedited
 GATCGAGTATTTCCCTTTTTTTTTTTTGGATTTTTAAATTTTCTTTATTTTTGTAGAGG
 TGGGGTCTCACTGTGTGCTCTGGCTGGTCTCCAACCTCCGGGGCTTGAAGGATCCTCCT
 GCCTCCGCTCCCAAAGCCTGGCATTACAGGCGACAGCCATCGCGCCTAGCTGCGCTGG
 TAAACTGGCTAACGCGATCTATCTTAATTAGCCACCCACAGCTGCTACCGCCGCCCAT
 CCCCAGGGACCACACAGACCCAGGGGACAAGAAGGGCGCGGGAGACAGCGGCTGAGGAA
 GCCTTTACTGCGGGGCGGCCGAGGATCGCCGAGCTCAGGGTCCCCACCGCACCAGCGCC
 CGGCCTCGTCTCTGCCCCAGGCCCGGCCCGCCCCAGCCTCGGCCACGCTCGGCCT
 TTGCCGGAACGTGCGCGAACACTTCCCGGTGCATGGCGGTGACCTATTTGGAGCCGCTG
 GGTGTTTCAAGGCGCATCCGACCCAGGGGCAAGAAGCGCTCGGGGTGAAGTATCGCACGG
 TCGGCTTTGGCGCGCCAAGCGGTGAGGAAGACTCCGCCACCTCCTCTAGGTTCTGCG
 CGGCCCTGCCGAAAGACTTGCTTGTGCTGGCGCGGTATTGGCCAGAACCCTGGTGAAG
 GTGCGGGATCTTCTGTGCGGCCATCCCCCTCTGCTGGGGTTGCCCAACCACCTTTTTTC
 CTTGAAGGCGGGTGTGCTGGGCCCGCCTCCCCCAGGCTCAAGCTTCCGGACCCCAA
 AGGGCCCCCTCTCACCCCCCGATCTTGTGATAACCCCCGCGC

Restriction Sites:

NotI-NotI

ACCN:

NM_000413

Insert Size:

2000 bp

OTI Disclaimer:

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).

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_000413.1](#), [NP_000404.1](#)

RefSeq Size: 2230 bp

RefSeq ORF: 987 bp

Locus ID: 3292

UniProt ID: [P14061](#)

Cytogenetics: 17q21.2

Domains: adh_short

Protein Families: Druggable Genome

Protein Pathways: Androgen and estrogen metabolism, Metabolic pathways

Gene Summary: This gene encodes a member of the 17beta-hydroxysteroid dehydrogenase family of short-chain dehydrogenases/reductases. It has a dual function in estrogen activation and androgen inactivation and plays a major role in establishing the estrogen E2 concentration gradient between serum and peripheral tissues. The encoded protein catalyzes the last step in estrogen activation, using NADPH to convert estrogens E1 and E2 and androgens like 4-androstenedione, to testosterone. It has an N-terminal short-chain dehydrogenase domain with a cofactor binding site, and a narrow, hydrophobic C-terminal domain with a steroid substrate binding site. This gene is expressed primarily in the placenta and ovarian granulosa cells, and to a lesser extent, in the endometrium, adipose tissue, and prostate. Polymorphisms in this gene have been linked to breast and prostate cancer. A pseudogene of this gene has been identified. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2016]

Transcript Variant: This variant (1) uses an alternate in-frame splice site in the 3' coding region, compared to variant 2. It encodes isoform 1, which is shorter than isoform 2.

Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.