

Product datasheet for **RC211135**

HSD17B1 (NM_000413) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HSD17B1 (NM_000413) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HSD17B1
Synonyms:	17-beta-HSD; 20-alpha-HSD; E2DH; EDH17B2; EDHB17; HSD17; SDR28C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211135 representing NM_000413 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGGCCCCCACCCTGGTCTCATCACCGGCTGTTCTCGGGCATCGGCCTGCACTTGGCCGTACGTCTGG
CTTCAGATCCATCCCAGAGCTTCAAAGTGTATGCCACGTTGAGGGACCTGAAAACACAGGGCCGGCTGTG
GGAGGCGGCCCGGGCCCTGGCATGCCCTCCGGGATCCCTGGAGACGTTGCAGCTGGACGTAAGGGACTCA
AAATCCGTGGCCGCTGCCCGGAACGCGTGACTGAGGGCCGCTGGACGTGCTGGTGTGAACGCAGGCC
TGGGCCTGCTGGGGCCGCTGGAGGCGCTGGGGGAGGACGCGTGGCCTCTGTGCTGGACGTAATGTAGT
AGGGACTGTGCGGATGCTGCAGGCCTTCTGCCAGACATGAAGAGGCGCGGTTCCGGACGCGTGTGGTG
ACCGGGAGCGTGGGAGGATTGATGGGGCTGCCTTTCAATGACGTTTATTGCGCCAGCAAGTTCGCGCTCG
AAGGCTTATGCGAGAGTCTGGCGGTTCTGCTGCTGCCCTTTGGGGTCCACTTGAGCCTGATCGAGTGCGG
CCCAGTGACACCGCCTTCATGGAGAAGGTGTTGGGCAGCCCAGAGGAGGTGCTGGACCGCACGGACATC
CACACCTCCACCGCTTCTACCAATACCTCGCCACAGCAAGCAAGTCTTTCGCGAGGCGGCGCAGAACC
CTGAGGAGGTGGCGGAGGTCTTCTCACCGCTTTCGCGCCCCGAAGCCGACCCTGCGCTACTTCACCAC
CGAGCGCTTCTGCCCTGCTGCGGATGCGCCTGGACGACCCAGCGGCTCCAACCTACGTCACCGCCATG
CACCGGAAGTGTTCGGCGACGTTCCGGCAAAGCCGAGGCTGGGGCCGAGGCTGGGGCGGGGCCGGGC
CTGGGGCAGAGGACGAGGCCGGCGCGGTGCGGTGGGGGACCCCTGAGCTCGGCGATCTCCGGCCGCCCC
GCAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC211135 representing NM_000413
 Red=Cloning site Green=Tags(s)

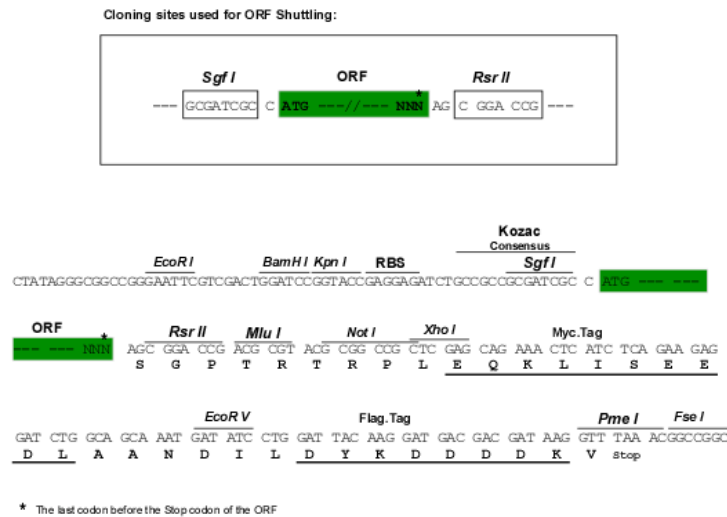
MARTVVLITGCSSGIGLHLAVRLASDPSQSFVKYATLRDLKTQGRLEAARALACPPGSLETQLDVRDS
 KSVAAARERVTEGRVDVLCNAGLGLLPLEALGEDAVASVLDVNVVGTVRMLQAFLPDMKRRGSGRVLV
 TGSVGGMLMGLPFNDVYCASKFALEGLCESLAVLLLPGVHLSLIECGPVHTAFMEKVLGSPVEVLDRTDI
 HTFHRFYQYLAHSKQVFREAAQNPEEVAEVFLTALRAPKPTLRFTTTERFLPLLRLDDPSGSNYVTAM
 HREVFGDVPKAEAGAEAGGGAGPGAEDAGRGAVGDPELGDPPAAPQ

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8114_f11.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_000413

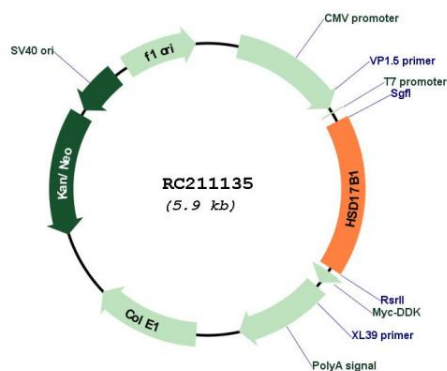
ORF Size: 984 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

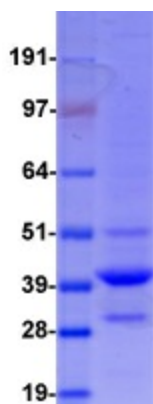
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_000413.4</u>
RefSeq Size:	2248 bp
RefSeq ORF:	987 bp
Locus ID:	3292
UniProt ID:	<u>P14061</u>
Cytogenetics:	17q21.2
Domains:	adh_short
Protein Families:	Druggable Genome
Protein Pathways:	Androgen and estrogen metabolism, Metabolic pathways
MW:	35 kDa
Gene Summary:	<p>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.</p> <p>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]</p>

Product images:



Circular map for RC211135



Coomassie blue staining of purified HSD17B1 protein (Cat# [TP311135]). The protein was produced from HEK293T cells transfected with HSD17B1 cDNA clone (Cat# RC211135) using MegaTran 2.0 (Cat# [TT210002]).