

## Product datasheet for **RC203109**

### **HSD11B1 (NM\_005525) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HSD11B1 (NM_005525) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HSD11B1
Synonyms:	11-beta-HSD1; 11-DH; CORTRD2; HDL; HSD11; HSD11B; HSD11L; SDR26C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203109 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTTTATGAAAAATATCTCCTCCCATTCTGGGGCTTTCATGGCCTACTACTACTATTCTGCAA  
ACGAGGAATTCAGACCAGAGATGCTCCAAGGAAAGAAAGTGATTGTCACAGGGCCAGCAAAGGGATCGG  
AAGAGAGATGGCTTATCATCTGGCGAAGATGGGAGCCCATGTGGTGGTGACAGCGAGGTCAAAGAACT  
CTACAGAAGGTGGTATCCACTGCCTGGAGCTTGGAGCAGCCTCAGCACACTACATTGCTGGCACCATGG  
AAGACATGACCTTCGCAGAGCAATTTGTTGCCAAGCAGGAAAGCTCATGGGAGGACTAGACATGCTCAT  
TCTCAACCACATACCAACACTTCTTTGAATCTTTTTTCATGATGATATTCACCATGTGCGCAAAAGCATG  
GAAGTCAACTTCCTCAGTTACGTGGTCTGACTGTAGCTGCCTTGCCCATGCTGAAGCAGAGCAATGGAA  
GCATTGTTGTCGTCCTCTCTGGCTGGGAAAGTGGCTTATCCAATGGTTGCTGCCTATTCTGCAAGCAA  
GTTTGCTTTGGATGGGTTCTTCTCCTCCATCAGAAAGGAATTCAGTGTCCAGGGTCAATGTATCAATC  
ACTCTCTGTGTTCTTGGCCTCATAGACACAGAAACAGCCATGAAGGCAGTTTCTGGGATAGTCCATATGC  
AAGCAGCTCAAAGGAGGAATGTGCCCTGGAGATCATCAAAGGGGAGCTCTGCGCCAGGAAGAAGTGTA  
TTATGACAGCTCACTCTGGACCCTCTTCTGATCAGAAAATCCATGCAGGAAGATCCTGGAATTTCTCTAC  
TCAACGAGCTATAATATGGACAGATTATAAACAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203109 protein sequence  
 Red=Cloning site Green=Tags(s)

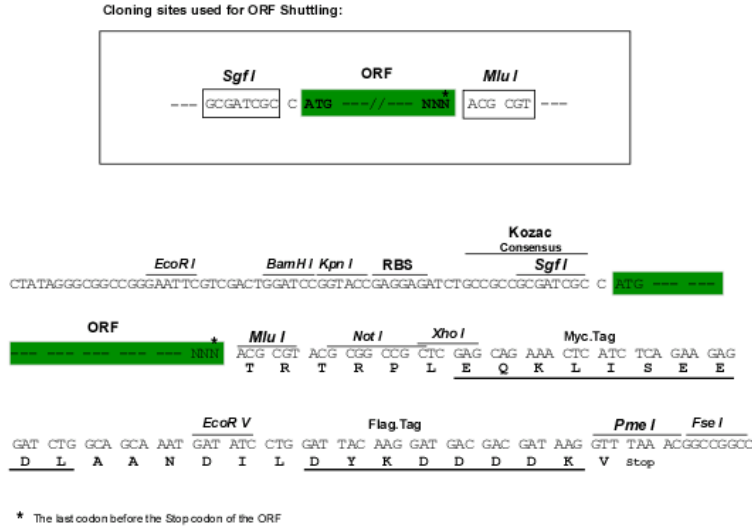
MAFMKKYLLPILGLFMAYYYYSANEEFRPEMLQGKKVIVTGASKGIGREMAHYHLAKMGAHVVVTARSKET  
 LQKVVSHCLELGAASAHYIAGTMEDMTFAEQFVAQAGKLMGGLDMLILNHI TNTSLNLFHDDIHVRKSM  
 EVNFLSYVVLTVAAALPMLKQSNGSIVVVS LAGKVAYPMVAAYSASKFALDGGFFSSIRKEYSVSRVNVSI  
 TLCVLGLIDTETAMKAVSGIVHMQAAPKEECALEI IKGGALRQEEVYYDSSLWTTLLIRNPCRKILEFLY  
 STSYNMDRFINK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

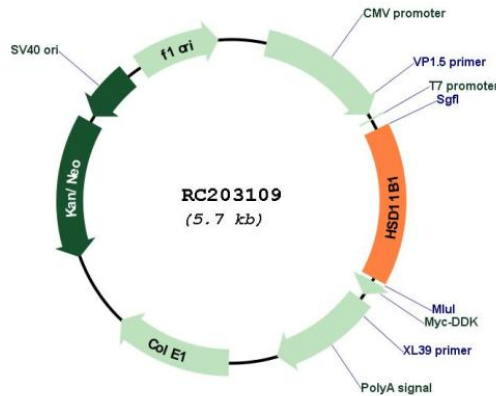
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6146\\_c01.zip](https://cdn.origene.com/chromatograms/mk6146_c01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**

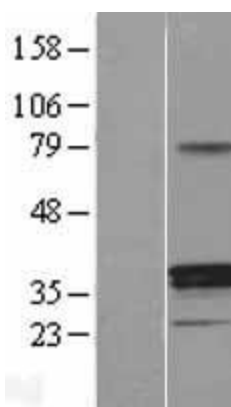


**ACCN:** NM\_005525

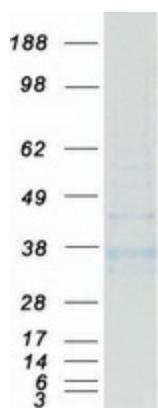
<b>ORF Size:</b>	876 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_005525.4</a>
<b>RefSeq Size:</b>	1477 bp
<b>RefSeq ORF:</b>	879 bp
<b>Locus ID:</b>	3290
<b>UniProt ID:</b>	<a href="#">P28845</a>
<b>Cytogenetics:</b>	1q32.2
<b>Domains:</b>	adh_short
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways
<b>MW:</b>	32.4 kDa

**Gene Summary:**

The protein encoded by this gene is a microsomal enzyme that catalyzes the conversion of the stress hormone cortisol to the inactive metabolite cortisone. In addition, the encoded protein can catalyze the reverse reaction, the conversion of cortisone to cortisol. Too much cortisol can lead to central obesity, and a particular variation in this gene has been associated with obesity and insulin resistance in children. Mutations in this gene and H6PD (hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase)) are the cause of cortisone reductase deficiency. Alternate splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, May 2011]

**Product images:**


Western blot validation of overexpression lysate (Cat# [LY401695]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203109 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HSD11B1 protein (Cat# [TP303109]). The protein was produced from HEK293T cells transfected with HSD11B1 cDNA clone (Cat# RC203109) using MegaTran 2.0 (Cat# [TT210002]).