

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; CORTD2; 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
 GCCCGCATCGCC

ATGGCTTTTATGAAAAATATCTCCTCCCCATTCTGGGGCTTTCATGGCCTACTACTATTCTGCAA
 ACGAGGAATTCAGACCAGAGATGCTCCAAGGAAAGAAAGTGATTGTCACAGGGGCCAGCAAAGGGATCGG
 AAGAGAGATGGCTTATCATCTGGCGAAGATGGGAGCCCATGTGGTGGTGACAGCGAGGTCAAAGAAACT
 CTACAGAAGGTGGTATCCCACTGCCTGGAGCTTGGAGCAGCCTCAGCACACTACATTGCTGGCACCATTGG
 AAGACATGACCTTCGCAGAGCAATTTGTTGCCAAGCAGGAAAGCTCATGGGAGGACTAGACATGCTCAT
 TCTCAACCACATACCAACACTTCTTTGAATCTTTTTCATGATGATATTACCATGTGCGCAAAAGCATG
 GAAGTCAACTTCCTCAGTTACGTGGTCTGACTGTAGCTGCCTTGCCCATGCTGAAGCAGAGCAATGGAA
 GCATTGTTGTCGTCCTCTCTGGCTGGGAAAGTGGCTTATCCAATGGTTGCTGCCTATTCTGCAAGCAA
 GTTTGCTTTGGATGGGTTCTTCTCCTCCATCAGAAAGGAATATTCAGTGTCCAGGGTCAATGTATCAATC
 ACTCTCTGTGTTCTTGGCCTCATAGACACAGAAACAGCCATGAAGGCAGTTTCTGGGATAGTCCATATGC
 AAGCAGCTCAAAGGAGGAATGTGCCCTGGAGATCATCAAGGGGGAGCTCTGCGCCAGGAAGAAGTGTA
 TTATGACAGCTCACTCTGGACCACTCTTCTGATCAGAAATCCATGCAGGAAGATCCTGGAATTTCTCTAC
 TCAACGAGCTATAATATGGACAGATTCATAACAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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

MAFMKKYLLPILGLFMAYYYYSANEEFRPEMLQGKKVIVTGASKGIGREMAHYHLAKMGAVVVTARSKET
 LQKVVSHCLELGAASAHYIAGTMEDMTFAEQFVAQAGKLMGGLDMLILNHITNTSLNLFHDDIHHVRKSM
 EVNFLSYVVLTVAAALPMLKQSNQSIIVVSSLAGKVAYPMVAAYSASKFALDGFSSIRKEYSVSRVNVSI
 TLCVLGLIDTETAMKAVSGIVHMQAAPKEECALEIIKGGALRQEEVYDSSLWTTLLIRNPCRKILEFLY
 STSYNMDRFINK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6146_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005525

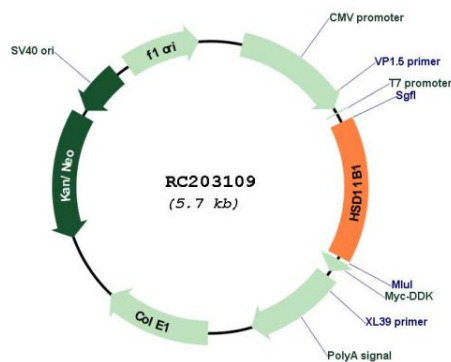
ORF Size: 876 bp

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.

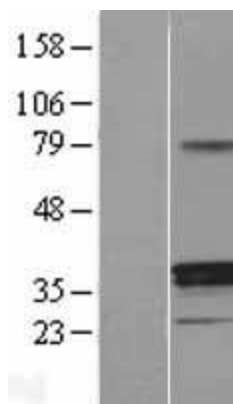
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	NM_005525.4
RefSeq Size:	1477 bp
RefSeq ORF:	879 bp
Locus ID:	3290
UniProt ID:	P28845
Cytogenetics:	1q32.2
Domains:	adh_short
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways
MW:	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]

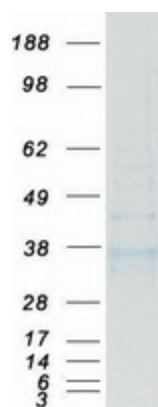
Product images:



Circular map for RC203109



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]).