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Product datasheet for RC207796

HSD11B2 (NM_000196) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HSD11B2 (NM_000196) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HSD11B2
Synonyms:	AME; AME1; HSD2; HSD11K; SDR9C3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC207796 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCGCTGGCCTTGGCCGTCGGGCGGCGCCTGGCTGCTCGTGGCTGCCCGCGCGCTGCTGCAGCTGC
TGCGCTCAGACCTGCGTCTGGGCCGCCCGCTGCTGGCGGCGCTGGCGCTGCTGGCCGCGCTCGACTGGCT
GTGCCAGCGCCTGCTGCCCCCGCCGGCCGCACTCGCCGTGCTGGCCGCCGCCGGCTGGATCGCGTTGTCC
CGCCTGGCGCGCCCGCAGCGCCTGCCGGTGGCCACTCGCGCGGTGCTCATCACCGGCTGTGACTCTGGTT
TTGGCAAGGAGACGGCCAAGAAACTGGACTCCATGGGCTTCACGGTGCTGGCCACCGTATTGGAGTTGAA
CAGCCCCGGTGCCATCGAGCTGCGTACCTGCTGCTCCCCTCGCCTAAGGCTGCTGCAGATGGACCTGACC
AAACCAGGAGACATTAGCCGCGTGCTAGAGTTCACCAAGGCCCACACCACCAGCACCGGCCTGTGGGGCC
TCGTCAACAACGCAGGCCACAATGAAGTAGTTGCTGATGCGGAGCTGTCTCCAGTGGCCACTTTCCGTAG
CTGCATGGAGGTGAATTTCTTTGGCGCGCTCGAGCTGACCAAGGGCCTCCTGCCCCTGCTGCGCAGCTCA
AGGGGCCGCATCGTGACTGTGGGGAGCCCAGCGGGGGACATGCCATATCCGTGCTTGGGGGCCTATGGAA
CCTCCAAAGCGGCCGTGGCGCTACTCATGGACACATTCAGCTGTGAACTCCTTCCCTGGGGGGTCAAGGT
CAGCATCATCCAGCCTGGCTGCTTCAAGACAGAGTCAGTGAGAAACGTGGGTCAGTGGGAAAAGCGCAAG
CAATTGCTGCTGGCCAACCTGCCTCAAGAGCTGCTGCAGGCCTACGGCAAGGACTACATCGAGCACTTGC
ATGGGCAGTTCCTGCACTCGCTACGCCTGGCCATGTCCGACCTCACCCCAGTTGTAGATGCCATCACAGA
TGCGCTGCTGGCAGCTCGGCCCCGCCGCCGCTATTACCCCGGCCAGGGCCTGGGGCTCATGTACTTCATC
CACTACTACCTGCCTGAAGGCCTGCGGCGCCGCTTCCTGCAGGCCTTCTTCATCAGTCACTGTCTGCCTC
GAGCACTGCAGCCTGGCCAGCCTGGCACTACCCCACCACAGGACGCAGCCCAGGGCCCAAACCTGAGCCC
CGGCCCTTCCCCAGCAGTGGCTCGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC207796 protein sequence
Red=Cloning site Green=Tags(s)

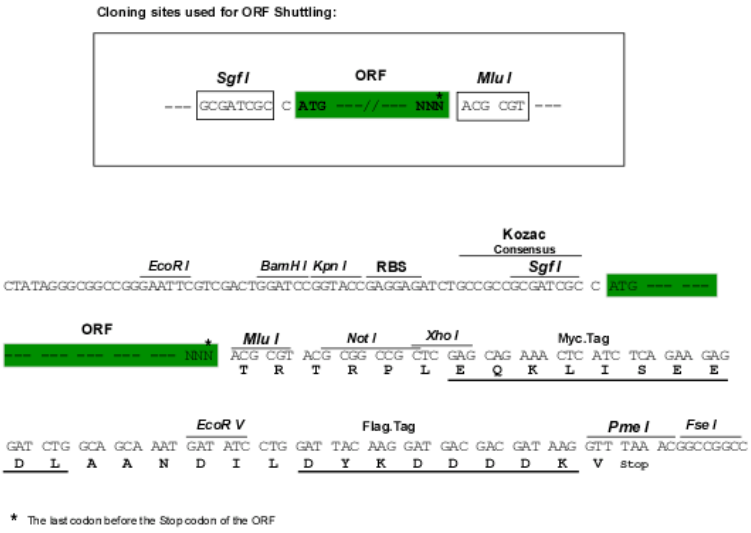
MERWPWPSGGAWLLVAARALLQLLRSDLRLGRPLLAALALLAALDWLCQRLLPPPAALAVLAAAGWIALS
RLARPQRLPVATRAVLITGCDSGFGKETAKKLDSMGFTVLATVLELNSPGAIELRTCCSPRLRLLQMDLT
KPGDISRVLEFTKAHTTSTGLWGLVNNAGHNEVVADAELSPVATFRSCMEVNFFGALELTKGLLPLLRSS
RGRIVTVGSPAGDMPYPCLGAYGTSKAAVALLMDTFSCELLPWGVKVSIIQPGCFKTESVRNVGQWEKRK
QLLLANLPQELLQAYGKDYIEHLHGQFLHSLRLAMSDLTPVVDAITDALLAARPRRRYYPGQGLGLMYFI
HYYLPEGLRRRFLQAFFISHCLPRALQPGQPGTTPPQDAAQGPNLSPGPSPAVAR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6265_f11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000196

ORF Size: 1215 bp

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. 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).

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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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000196.2, NP_000187.2
RefSeq Size:	1939 bp
RefSeq ORF:	1218 bp
Locus ID:	3291
UniProt ID:	P80365
Cytogenetics:	16q22.1
Protein Families:	Druggable Genome
Protein Pathways:	Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways
MW:	44.1 kDa
Gene Summary:	There are at least two isozymes of the corticosteroid 11-beta-dehydrogenase, a microsomal enzyme complex responsible for the interconversion of cortisol and cortisone. The type I isozyme has both 11-beta-dehydrogenase (cortisol to cortisone) and 11-oxoreductase (cortisone to cortisol) activities. The type II isozyme, encoded by this gene, has only 11-beta-dehydrogenase activity. In aldosterone-selective epithelial tissues such as the kidney, the type II isozyme catalyzes the glucocorticoid cortisol to the inactive metabolite cortisone, thus preventing illicit activation of the mineralocorticoid receptor. In tissues that do not express the mineralocorticoid receptor, such as the placenta and testis, it protects cells from the growth-inhibiting and/or pro-apoptotic effects of cortisol, particularly during embryonic development. Mutations in this gene cause the syndrome of apparent mineralocorticoid excess and hypertension. [provided by RefSeq, Feb 2010]

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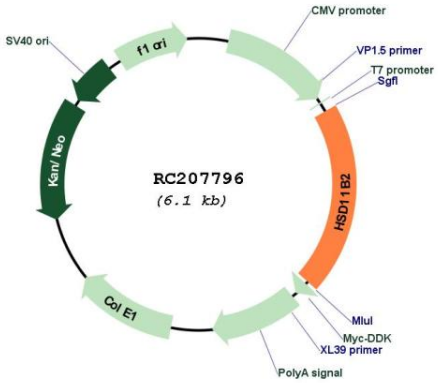
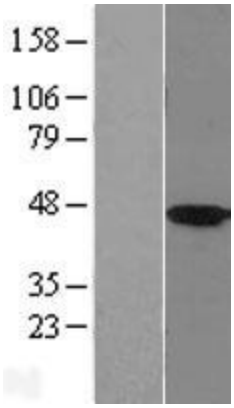
Product images:



Circular map for RC207796



Western blot validation of overexpression lysate (Cat# [LY424870]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207796 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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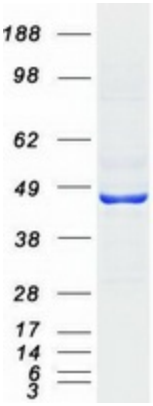

Coomassie blue staining of purified HSD11B2 protein (Cat# [TP307796]). The protein was produced from HEK293T cells transfected with HSD11B2 cDNA clone (Cat# RC207796) using MegaTran 2.0 (Cat# [TT210002]).

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