

Product datasheet for RC204497

HSD3B1 (NM_000862) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HSD3B1 (NM_000862) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HSD3B1
Synonyms:	3BETAHSD; HSD3B; HSDB3; HSDB3A; SDR11E1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204497 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGACGGGCTGGAGCTGCCTTGTGACAGGAGCAGGAGGGTTTCTGGGACAGAGGATCATCCGCCTTTGG
TGAAGGAGAAGGAGCTGAAGGAGATCAGGGTCTTGGACAAGGCCCTTCGGACCAGAATTGAGAGAGGAATT
TTCTAAACTCCAGAACAAGACCAAGCTGACAGTGTGGAAGGAGACATTCTGGATGAGCCATTCTGAAG
AGAGCCTGCCAGGACGTCTCGGTCATCATCCACACCGCCTGTATCATTGATGTCTTCGGTGTCACTACA
GAGAGTCTATCATGAATGTCAATGTGAAAGGTACCCAGTCTCTGTAGAGGCCTGTGTCCAAGCTAGTGT
GCCAGTCTTCATCTACACCAAGTAGCATAGAGGTAGCCGGGCCAACTCCTACAAGGAAATCATCCAGAAT
GGCCATGAAGAAGAGCCTCTGGAACACATGGCCCGCTCCATACCCACACAGCAAAAAGCTTGCTGAGA
AGGCTGTACTGGCGGCTAACGGGTGGAATCTGAAAACGGCGGCACCCTGTACACTTGTGCCTTACGACC
CATGTATATCTATGGGAAGGAAGCCGATTCTTTCTGCTAGTATAAACGAGGCCCTGAACAACAATGGG
ATCCTGTCAAGTGTGGAAAGTTCTCCACTGTTAACCAGTCTATGTTGGCAATGTGGCCTGGGCCACA
TTCTGGCCTTGAGGGCCCTGCAGGACCCCAAGAAGGCCCAAGCATCCGAGGACAGTTCTACTATATCTC
AGATGACACGCCTCACCAAAGCTATGATAACCTTAATTACACCCTGAGCAAAGAGTTCGGCCTCCGCCTT
GATTCAGATGGAGCTTTCCTTTATCCCTGATGTATTGGATTGGCTTCTGCTGGAAATAGTGAGCTTCC
TACTCAGGCCAATTTACACCTATCGACCCCTTCAACCGCCACATAGTCACATTGTCAAATAGCGTATT
CACCTTCTTTATAAGAAGGCTCAGCGAGATTTGGCGTATAAGCCACTCTACAGCTGGGAGGAAGCCAAG
CAGAAAACGGTGGAGTGGTTGGTTCCCTTGTGGACCGCACAAGGAGAACCTGAAGTCCAAGACTCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204497 protein sequence
Red=Cloning site Green=Tags(s)

MTGWSCLVTGAGGFLGQRIIRLLVKEKELKEIRVLDKAFGPELREEFSKLQNKTKLTVLEGDILDEPFLK
 RACQDVSVIIHTACIIDVFGVTHRESIMNVNKGTLQLLEACVQASVPVFIYTSSIEVAGPNSYKEIIQN
 GHEEPLNTWPAPYPHKKLAEKAVLAANGWNLKNGGTYTCALRPMYIYGEGRFLSASINEALNNG
 ILLSSVGKfstvnpvyyvgnvawahilalralqdpkkapsirgqfyyisddtphqsydnlntlskefGLRL
 DSRWSFPLSLMYWIGFLLLEIVSFLLRPIYTYRPPFNRIHTLSNSVFTFSYKKAQRDLAYKPLYSWEEAK
 QKTVEWVWVGLVDRHKENLKSQTQ

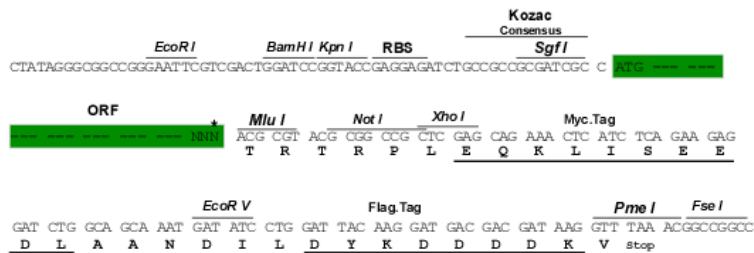
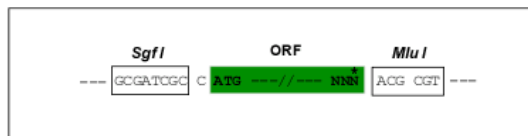
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6014_d07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000862

ORF Size: 1119 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).

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_000862.3](#)

RefSeq Size: 1689 bp

RefSeq ORF: 1122 bp

Locus ID: 3283

UniProt ID: [P14060](#)

Cytogenetics: 1p12

Domains: 3Beta_HSD

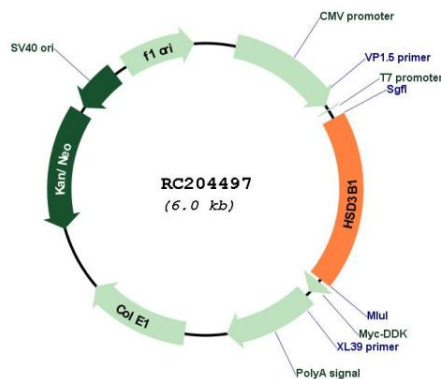
Protein Families: Transmembrane

Protein Pathways: Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways

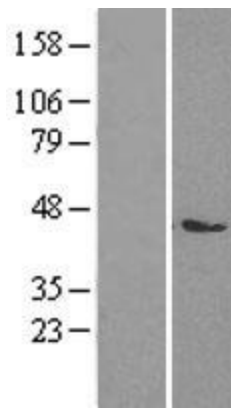
MW: 42.3 kDa

Gene Summary: The protein encoded by this gene is an enzyme that catalyzes the oxidative conversion of delta-5-3-beta-hydroxysteroid precursors into delta-4-ketosteroids, which leads to the production of all classes of steroid hormones. The encoded protein also catalyzes the interconversion of 3-beta-hydroxy- and 3-keto-5-alpha-androstane steroids. [provided by RefSeq, Jun 2016]

Product images:



Circular map for RC204497



Western blot validation of overexpression lysate (Cat# [LY400306]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204497 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HSD3B1 protein (Cat# [TP304497]). The protein was produced from HEK293T cells transfected with HSD3B1 cDNA clone (Cat# RC204497) using MegaTran 2.0 (Cat# [TT210002]).