

## **Product datasheet for RC201734**

### OriGene Technologies, Inc.

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## ERAB (HSD17B10) (NM\_004493) Human Tagged ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: ERAB (HSD17B10) (NM\_004493) Human Tagged ORF Clone

Tag: Myc-DDK
Symbol: ERAB

Synonyms: 17b-HSD10; ABAD; CAMR; DUPXp11.22; ERAB; HADH2; HCD2; HSD10MD; MHBD; MRPP2;

MRX17; MRX31; MRXS10; SCHAD; SDR5C1

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>RC201734 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA





**Protein Sequence:** >RC201734 protein sequence

Red=Cloning site Green=Tags(s)

MAAACRSVKGLVAVITGGASGLGLATAERLVGQGASAVLLDLPNSGGEAQAKKLGNNCVFAPADVTSEKD VQTALALAKGKFGRVDVAVNCAGIAVASKTYNLKKGQTHTLEDFQRVLDVNLMGTFNVIRLVAGEMGQNE PDQGGQRGVIINTASVAAFEGQVGQAAYSASKGGIVGMTLPIARDLAPIGIRVMTIAPGLFGTPLLTSLP EKVCNFLASQVPFPSRLGDPAEYAHLVQAIIENPFLNGEVIRLDGAIRMQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: <a href="https://cdn.origene.com/chromatograms/mk6092">https://cdn.origene.com/chromatograms/mk6092</a> h06.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



CTATAGGGCGGCCGG	EcoRI AATTOGTOGA	BamHI F			Kozac Consensu Sg	if I	ATG	
ORF	NNN F	Miui CG CGT AC T R 1	Not1	Xhol	CAG AAA Q K	Myc.Tag CTC AT L I	C TCA S	gaa gag E E
GAT CTG GCA GCA D L A A	AAT GAT AS	C CTG GAT	Flag.T TAC AAG Y K	-			Pme I TAA A Stop	Fse I

<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_004493

ORF Size: 783 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

**RefSeq:** <u>NM 004493.3</u>

RefSeq Size: 963 bp
RefSeq ORF: 786 bp
Locus ID: 3028
UniProt ID: Q99714
Cytogenetics: Xp11.22
Domains: adh\_short

**Protein Families:** Druggable Genome

**Protein Pathways:** Alzheimer's disease, Metabolic pathways, Valine, leucine and isoleucine degradation

**MW:** 26.9 kDa

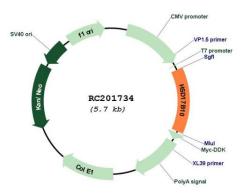
**Gene Summary:** This gene encodes 3-hydroxyacyl-CoA dehydrogenase type II, a member of the short-chain

dehydrogenase/reductase superfamily. The gene product is a mitochondrial protein that catalyzes the oxidation of a wide variety of fatty acids and steroids, and is a subunit of mitochondrial ribonuclease P, which is involved in tRNA maturation. The protein has been implicated in the development of Alzheimer disease, and mutations in the gene are the cause of 17beta-hydroxysteroid dehydrogenase type 10 (HSD10) deficiency. Several alternatively spliced transcript variants have been identified, but the full-length nature of only two

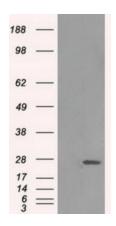
transcript variants has been determined. [provided by RefSeq, Aug 2014]



# **Product images:**

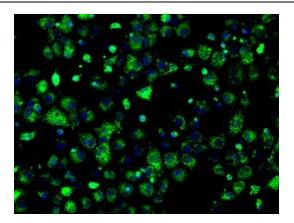


Circular map for RC201734

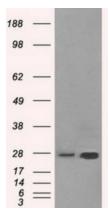


HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY HSD17B10 (RC201734, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HSD17B10 ([TA500724]). Positive lysates [LY401426] (100ug) and [LC401426] (20ug) can be purchased separately from OriGene.

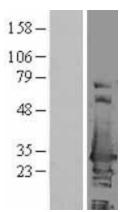




Anti-HSD17B10 mouse monoclonal antibody ([TA500724]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY HSD17B10 (RC201734).

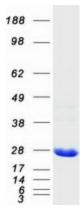


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HSD17B10 (Cat# RC201734, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HSD17B10(Cat# [TA500686]). Positive lysates [LY401426] (100ug) and [LC401426] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401426]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201734 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).





Coomassie blue staining of purified HSD17B10 protein (Cat# [TP301734]). The protein was produced from HEK293T cells transfected with HSD17B10 cDNA clone (Cat# RC201734) using MegaTran 2.0 (Cat# [TT210002]).