

## Product datasheet for **RG203539**

### **ERAB (HSD17B10) (NM\_001037811) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ERAB (HSD17B10) (NM_001037811) Human Tagged ORF Clone
Tag:	TurboGFP
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-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203539 representing NM_001037811 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGCAGCAGCGTGTCCGAGCGTGAAGGGCCTGGTGGCGTAATAACCGGAGGAGCCTCGGGCCTGGGCC  
TGGCCACGGCGGAGCGACTTGTGGGGCAGGGAGCCTCTGCTGTGCTTCTGGACCTGCCAACTCGGGTGG  
GGAGGCCAAGCCAAGAAGTTAGGAAACAACCTGCGTTTTTCGCCCCAGCCGACGTGACCTCTGAGAAGGAT  
GTGCAAACAGCTCTGGCTCTAGCAAAAGGAAAGTTTGGCCGTGTGGATGTAGCTGTCAACTGTGCAGGCA  
TCGCGGTGGCTAGCAAGACGTACAACCTAAAGAAGGGCCAGACCCATACCTTGAAGACTTCCAGCGAGT  
TCTTGATGTGAATCTCATGGGCACCTTCAATGTGATCCGCCTGGTGGCTGGTGGATGGGCCAGAATGAA  
CCAGACCAGGGAGGCCAACGTGGGTTCATCATCAACACTGCCAGTGTGGCTGCCTTCGAGGGTCAGTTG  
GACAAGCTGCATACTCTGCTTCCAAGGGGGGAATAGTGGGCATGACACTGCCATTGCTCGGGATCTGGC  
TCCCATAGGTCTGTTTGGCACCCCACTGCTGACCAGCCTCCCAGAGAAAGTGTGCAACTTCTTGGCCAGC  
CAAGTGCCCTTCCCTAGCCGACTGGGTGACCCTGCTGAGTATGCTCACCTCGTACAGGCCATCATCGAGA  
ACCCATTCTCAATGGAGAGTTCATCCGGCTGGATGGGGCCATTCGTATGCAGCCT

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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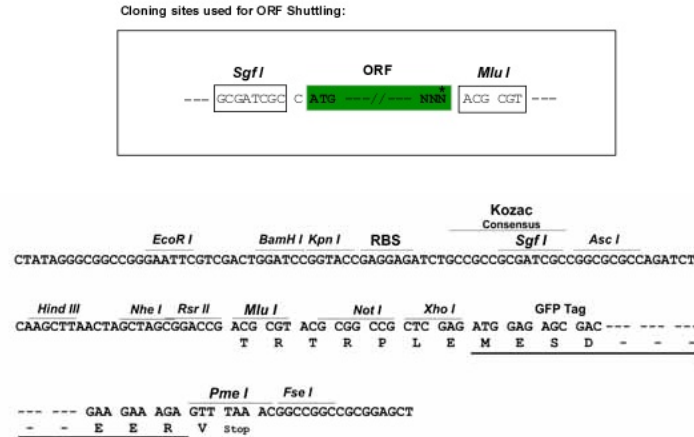
**Protein Sequence:** >RG203539 representing NM\_001037811  
Red=Cloning site Green=Tags(s)

MAAACRSVKGLVAVITGGASGLGLATAERLVGQGASAVLLDLPNSGGEAQAKKLGNNCVFAPADVTSEKD  
 VQTALALAKGKFRVDVAVNCAGIAVASKTYNLKKGQHTLEDQFQVLDVNLMGTFNVIRLVAGEMGQNE  
 PDQGGQRGVVIINTASVAAFEGQVQAAYSASKGGIVGMLPIARDLAPIGLFGTPLLTSLEKVCNFLAS  
 QVPFPSRLGDPAEYAHLVQAIENPFLNGEVIRLDGAIRMQP

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001037811

**ORF Size:** 756 bp

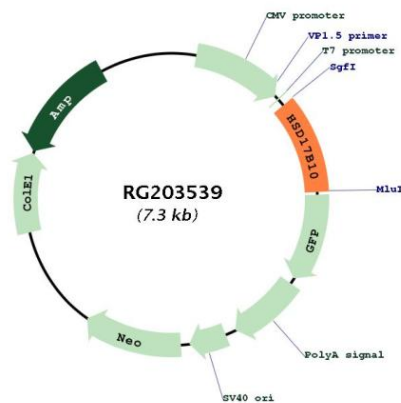
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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_001037811.2</a> , <a href="#">NP_001032900.1</a>
<b>RefSeq Size:</b>	936 bp
<b>RefSeq ORF:</b>	759 bp
<b>Locus ID:</b>	3028
<b>UniProt ID:</b>	<a href="#">Q99714</a>
<b>Cytogenetics:</b>	Xp11.22
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Alzheimer's disease, Metabolic pathways, Valine, leucine and isoleucine degradation
<b>Gene Summary:</b>	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 RG203539