

**Product Name: ERAB Rabbit Polyclonal Antibody****Catalog #: APRab10561**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat,Monkey
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000
<b>Molecular Weight</b>	27kDa

**Antigen Information**

<b>Gene Name</b>	HSD17B10 HSD17B10; ERAB; HADH2; MRPP2; SCHAD; XH98G2; 3-hydroxyacyl-CoA dehydrogenase
<b>Alternative Names</b>	type-2; 17-beta-hydroxysteroid dehydrogenase 10; 17-beta-HSD 10; 3-hydroxy-2-methylbutyryl-CoA dehydrogenase; 3-hydroxyacyl-CoA dehydrogenase type II; Endoplasmic
<b>Gene ID</b>	3028.0
<b>SwissProt ID</b>	Q99714
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human ERAB. AA range:111-160

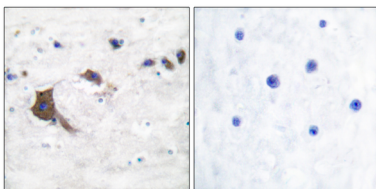
## Background

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],catalytic activity:(2S,3S)-3-hydroxy-2-methylbutanoyl-CoA + NAD(+) = 2-methylacetoacetyl-CoA + NADH,catalytic activity:(S)-3-hydroxyacyl-CoA + NAD(+) = 3-oxoacyl-CoA + NADH,disease:A chromosomal microduplication involving HSD17B10 and HUWE1 is the cause of mental retardation X-linked type 17 (MRX17) [MIM:300705]; also known as mental retardation X-linked type 31 (MRX31). Mental retardation is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptative behavior and manifested during the developmental period. In contrast to syndromic or specific X-linked mental retardation which also present with associated physical, neurological and/or psychiatric manifestations, intellectual deficiency is the only primary symptom of non-syndromic X-linked mental retardation,disease:Defects in HSD17B10 are the cause of 2-methyl-3-hydroxybutyryl-CoA dehydrogenase deficiency (MHBD deficiency) [MIM:300438]. MHBD deficiency leads to neurological abnormalities, including psychomotor retardation, and, in virtually all patients, loss of mental and motor skills,disease:Defects in HSD17B10 are the cause of mental retardation syndromic X-linked type 10 (MRXS10) [MIM:300220]. MRXS10 is characterized by mild mental retardation, choreoathetosis and abnormal behavior,function:Functions in mitochondrial tRNA maturation. Part of mitochondrial ribonuclease P, an enzyme composed of MRPP1/RG9MTD1, MRPP2/HSD17B10 and MRPP3/KIAA0391, which cleaves tRNA molecules in their 5'-ends. By interacting with intracellular amyloid-beta, it may contribute to the neuronal dysfunction associated with Alzheimer disease (AD),similarity:Belongs to the short-chain dehydrogenases/reductases (SDR) family,subunit:Homotetramer (By similarity). Interacts with MRPP1/RG9MTD1 and MRPP3/KIAA0391,tissue specificity:Expressed in normal tissues but is overexpressed in neurons affected in AD,

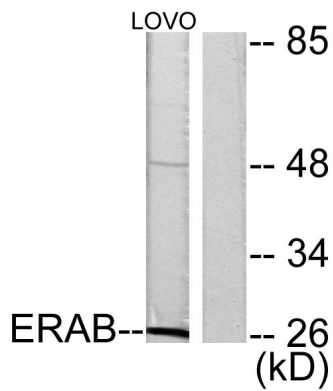
## Research Area

Valine; leucine and isoleucine degradation;Alzheimer's disease;

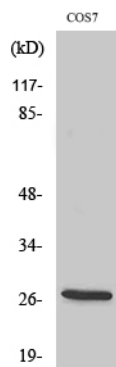
## Image Data



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using ERAB Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from LOVO cells, using ERAB Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using ERAB Polyclonal Antibody