

Anti-HSD17B4 Picoband Antibody
Catalog # ABO10268**Specification**

Anti-HSD17B4 Picoband Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P51659
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Peroxisomal multifunctional enzyme type 2(HSD17B4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HSD17B4 Picoband Antibody - Additional Information

Gene ID 3295

Other Names

Peroxisomal multifunctional enzyme type 2, MFE-2, 17-beta-hydroxysteroid dehydrogenase 4, 17-beta-HSD 4, D-bifunctional protein, DBP, Multifunctional protein 2, MPF-2, Short chain dehydrogenase/reductase family 8C member 1, (3R)-hydroxyacyl-CoA dehydrogenase, 1.1.1.n12, Enoyl-CoA hydratase 2, 4.2.1.107, 4.2.1.119, 3-alpha, 7-alpha, 12-alpha-trihydroxy-5-beta-cholest-24-enoyl-CoA hydratase, HSD17B4, EDH17B4, SDR8C1

Calculated MW

79686 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Peroxisome.

Tissue Specificity

Present in many tissues with highest concentrations in liver, heart, prostate and testis.

Protein Name

Peroxisomal multifunctional enzyme type 2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human HSD17B4 recombinant protein (Position: D510-L736). Human HSD17B4 shares 87.7% and 89% amino acid (aa) sequence identity with mouse and rat HSD17B4, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-HSD17B4 Picoband Antibody - Protein Information

Name HSD17B4 ([HGNC:5213](#))

Synonyms EDH17B4, SDR8C1

Function

Bifunctional enzyme acting on the peroxisomal fatty acid beta-oxidation pathway. Catalyzes two of the four reactions in fatty acid degradation: hydration of 2-enoyl-CoA (trans-2-enoyl-CoA) to produce (3R)-3-hydroxyacyl-CoA, and dehydrogenation of (3R)-3-hydroxyacyl-CoA to produce 3-ketoacyl-CoA (3-oxoacyl-CoA), which is further metabolized by SCPx. Can use straight-chain and branched-chain fatty acids, as well as bile acid intermediates as substrates.

Cellular Location

Peroxisome.

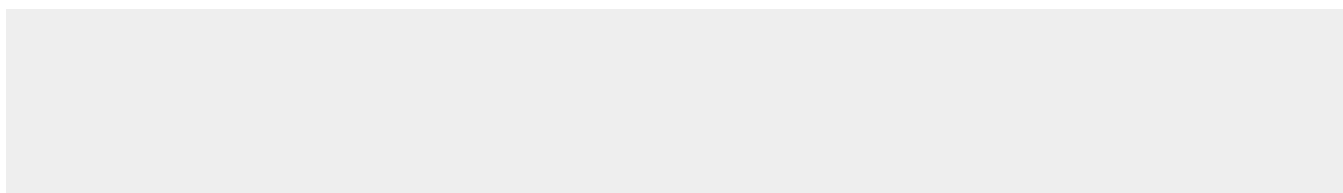
Tissue Location

Present in many tissues with highest concentrations in liver, heart, prostate and testis

Anti-HSD17B4 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-HSD17B4 Picoband Antibody - Images

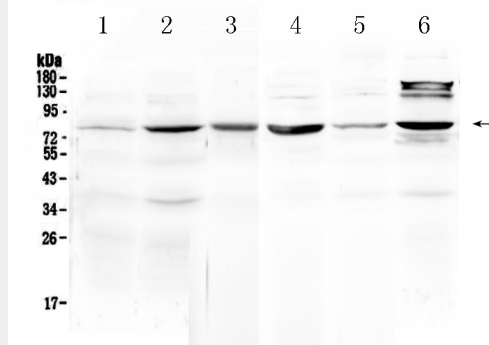


Figure 1. Western blot analysis of HSD17B4 using anti- HSD17B4 antibody (ABO10268). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: mouse liver tissue lysates, Lane 3: mouse heart tissue lysates, Lane 4: mouse testis tissue lysates, Lane 5: MCF-7 whole Cell lysates, Lane 6: HELA whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- HSD17B4 antigen affinity purified polyclonal antibody (Catalog # ABO10268) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for HSD17B4 at approximately 80KD. The expected band size for HSD17B4 is at 80KD.

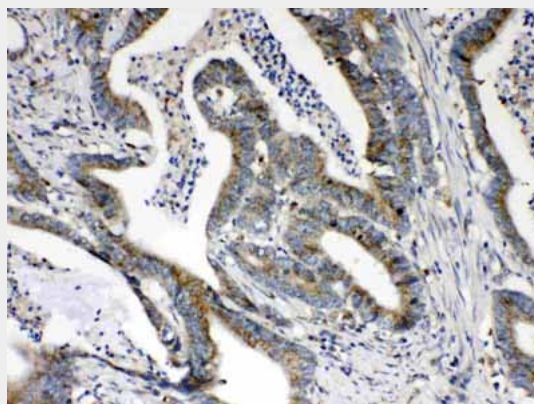


Figure 2. IHC analysis of HSD17B4 using anti- HSD17B4 antibody (ABO10268).HSD17B4 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- HSD17B4 Antibody (ABO10268) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

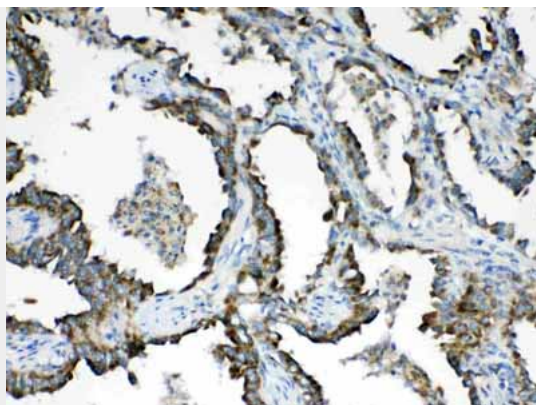


Figure 3. IHC analysis of HSD17B4 using anti- HSD17B4 antibody (ABO10268).HSD17B4 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- HSD17B4 Antibody (ABO10268) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

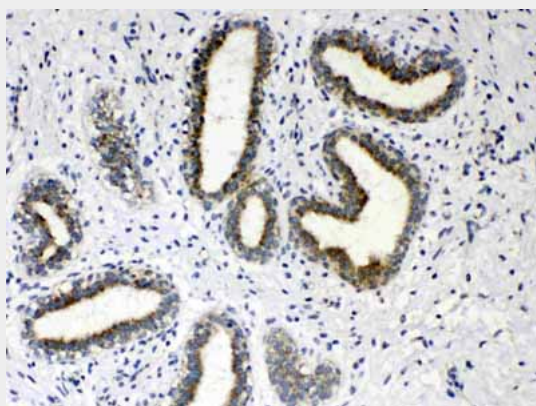


Figure 4. IHC analysis of HSD17B4 using anti- HSD17B4 antibody (ABO10268).HSD17B4 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti- HSD17B4 Antibody (ABO10268) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

Anti-HSD17B4 Picoband Antibody - Background

Peroxisomal multifunctional enzyme type 2 is a protein that in humans is encoded by the HSD17B4 gene. The protein encoded by this gene is a bifunctional enzyme that is involved in the peroxisomal beta-oxidation pathway for fatty acids. It also acts as a catalyst for the formation of 3-ketoacyl-CoA intermediates from both straight-chain and 2-methyl-branched-chain fatty acids. Defects in this gene that affect the peroxisomal fatty acid beta-oxidation activity are a cause of D-bifunctional protein deficiency (DBPD). An apparent pseudogene of this gene is present on chromosome 8. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.