

Anti-HSD17B2 Antibody Picoband®

Catalog Number: A02506-1

About HSD17B2

HSD17B2(17-BETA-HYDROXYSTEROID DEHYDROGENASE II), also called 17-BETA-HSD II, is an enzyme which has 387 amino acids with a predicted molecular weight of 42,782 and associates with the membranes of the endoplasmic reticulum. Its cytogenetic location is 16q23.3. The type 2 enzyme was capable of catalyzing the interconversion of testosterone and androstenedione, as well as estradiol and estrone. HSD17B2 mRNA was detected in 18 of 42(43%) adenomas but not in prolactinomas. In the human endometrium, inactivation of 17-beta-estradiol to estrone is catalyzed by HSD17B2. And HSD17B2 activity distinguishes between disease-free and diseased endometria. HSD17B2 efficiently catalyzes the oxidative metabolism of androgens and estrogens, and it is expressed in a large series of human peripheral tissues. The previous paradigm that HSD17B2 activity in the endometrium is elevated during the secretory phase is confined to diseased endometrium but not to disease-free endometrium.

Overview

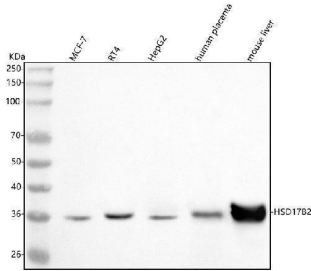
Product Name	Anti-HSD17B2 Antibody Picoband®
Reactive Species	Human, Mouse
Description	Boster Bio Anti-HSD17B2 Antibody Picoband® catalog # A02506-1. Tested in ELISA, IF, ICC, WB, Flow Cytometry applications. This antibody reacts with Human, Mouse. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P37059

Technical Details

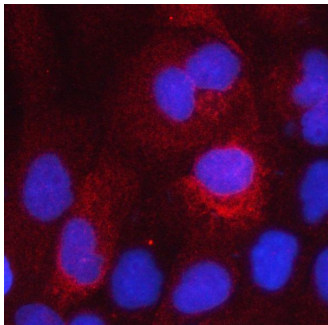
Immunogen	E.coli-derived human HSD17B2 recombinant protein (Position: Q75-R365). Human HSD17B2 shares 63.6% and 65.2% amino acid (aa) sequence identity with mouse and rat HSD17B2, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross reactivity with other proteins.

Isotype	IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

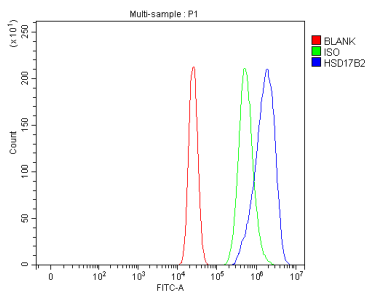
Anti-HSD17B2 Antibody Picoband® (A02506-1) Images



Western blot analysis of HSD17B2 using anti-HSD17B2 antibody (A02506-1). 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 30 ug of sample under reducing conditions. Lane 1: human MCF-7 whole cell lysates, Lane 2: human RT4 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human placenta tissue lysates, Lane 5: mouse liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-HSD17B2 antigen affinity purified polyclonal antibody (Catalog # A02506-1) at 0.5 ug/mL overnight at 4°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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HSD17B2 at approximately 37 kDa. The expected band size for HSD17B2 is at 43-49,35-40 kDa.



IF analysis of HSD17B2 using anti-HSD17B2 antibody (A02506-1). HSD17B2 was detected in an immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-HSD17B2 Antibody (A02506-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of MCF-7 cells using anti-HSD17B2 antibody (A02506-1). Overlay histogram showing MCF-7 cells stained with A02506-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HSD17B2 Antibody (A02506-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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Anti-HSD17B2 Antibody

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