abcam

ab51045

Anti-HSD17B1 antibody [EP1682Y]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.05% Sodium azide Constituents: 50% Tissue culture supernatant, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1682Y
Purification technique	Affinity purification Protein A
Concentration	0.131 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

IP

Tested

Species	Human
Dilution info	1/50
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information HSD17B1

Function	Favors the reduction of estrogens and androgens. Converts estrone (E1) to a more potent estrogen, 17beta-estradiol (E2) (PubMed:8994190). Also has 20-alpha-HSD activity. Uses preferentially NADH.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

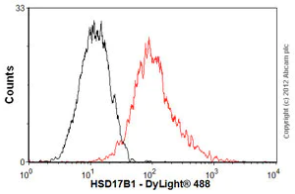
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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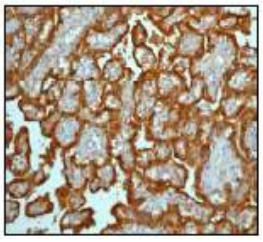
5 product images



Flow Cytometry (Intracellular) - Anti-HSD17B1 antibody [EP1682Y] (ab51045)

HSD17B1 Flow Cytometry (Intracellular) staining using rabbit Anti-HSD17B1 antibody

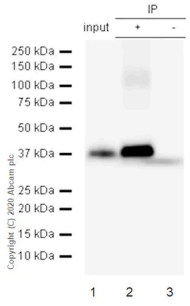
Overlay histogram showing JEG3 cells stained with ab51045 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab51045, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HSD17B1 antibody [EP1682Y] (ab51045)

HSD17B1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HSD17B1 antibody

ab51045 (1/100 dilution) staining human HSD17B1 in paraffin embedded human placenta tissue by Immunohistochemistry.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

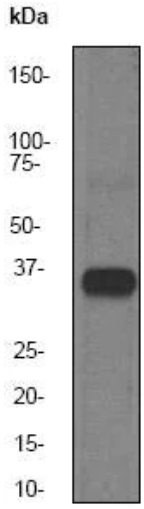


Immunoprecipitation - Anti-HSD17B1 antibody [EP1682Y] (ab51045)

Purified ab51045 at 1/50 dilution (2µg) immunoprecipitating HSD17B1 in Human placenta lysate.
Lane 1 (input): Human placenta lysate 10µg
Lane 2 (+): ab51045 + Human placenta lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab51045 in Human placenta lysate.
VeriBlot for IP Detection Reagent (HRP) (ab131366) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 34 kDa

All lanes:
Immunoprecipitation - Anti-HSD17B1 antibody [EP1682Y] (ab51045)

Predicted band size: 35 kDa



Western blot - Anti-HSD17B1 antibody [EP1682Y] (ab51045)

HSD17B1 Western blot staining of Human placenta tissue lysate using rabbit Anti-HSD17B1 antibody

All lanes:
Western blot - Anti-HSD17B1 antibody [EP1682Y] (ab51045) at 1/100000 dilution

All lanes:
Human placenta tissue lysate at 10 µg

Secondary

All lanes:
Goat anti-Rabbit HRP labeled at 1/2000 dilution

Predicted band size: 35 kDa

Observed band size: 35 kDa

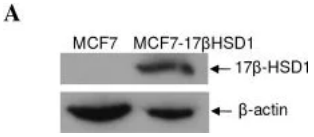


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Western blot - Anti-HSD17B1 antibody [EP1682Y] (ab51045)

HSD17B1 Western blot staining using rabbit Anti-HSD17B1 antibody

HSD17B1 western blot using anti-HSD17B1 antibody [EP1682Y] ab51045. Publication image and figure legend from Aka, J. A., Zerradi, M., et al., 2012, Breast Cancer Res, PubMed 22691413.

ab51045 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab51045 please see the product overview.

Proteomic analysis of wild type (WT) MCF7 cells and MCF7 cells stably transfected with 17β-HSD1 (MCF7-17βHSD1). (A) 17beta-hydroxysteroid dehydrogenase type 1 (17β-HSD1) and β-actin expression between WT MCF7 and MCF7-17βHSD1 revealed by western blots. (B) Representative two-dimensional gel images for WT MCF7 and MCF7-17βHSD1 cells. Whole cell lysates (200 µg) from each cell were separated by two-dimensional electrophoresis and visualized by Sypro Ruby staining. The two-dimensional gels were scanned and the differentially expressed (2-fold or higher, $p < 0.05$) proteins were detected using Progenesis software. The 18 differentially expressed protein spots that were selected for mass spectrometry (MS) analysis are marked with circles. Protein spots upregulated in MCF7-17βHSD1 are depicted in the MCF7-17βHSD1 proteome image; protein spots downregulated in MCF7-17βHSD1 are depicted in the MCF7 proteome image. The numbers refer to the spot number listed in Table 1 and Additional file 2. The squares represent the indicated area shown in more detail in (D). (C) Summary of the numbers of spots and proteins obtained from the proteomics data. *Upregulated (up) and downregulated (down) proteins in MCF7-17βHSD1 as compared to WT MCF7 cells. (D) Zoom showing some differentially expressed protein spots from WT MCF7 and MCF7-17βHSD1 comparison. Arrows indicate 17β-HSD1 protein which was revealed by MS analysis to be present in the spot numbers 2,305 (unique to MCF7-17βHSD1) and 2,300 (upregulated in MCF7-17βHSD1 as compared to WT MCF7 cells).

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