

Basic Information

Product Name	Anti-HSD17B1 Antibody	
Gene Name	HSD17B1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human HSD17B1 recombinant protein (A20-K249).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	37 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

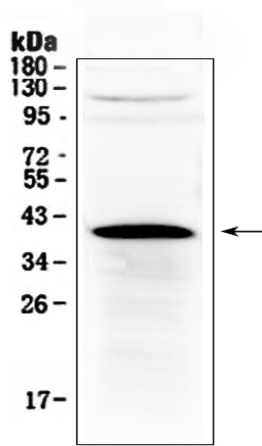
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Estradiol 17-beta-dehydrogenase 1 is an enzyme that in humans is encoded by the HSD17B1 gene. This gene encodes a member of the 17beta-hydroxysteroid dehydrogenase family of short-chain dehydrogenases/reductases. It has a dual function in estrogen activation and androgen inactivation and plays a major role in establishing the estrogen E2 concentration gradient between serum and peripheral tissues. The encoded protein catalyzes the last step in estrogen activation, using NADPH to convert estrogens E1 and E2 and androgens like 4-androstenedione, to testosterone. It has an N-terminal short-chain dehydrogenase domain with a cofactor binding site, and a narrow, hydrophobic C-terminal domain with a steroid substrate binding site. This gene is expressed primarily in the placenta and ovarian granulosa cells, and to a lesser extent, in the endometrium, adipose tissue, and prostate. Polymorphisms in this gene have been linked to breast and prostate cancer. A pseudogene of this gene has been identified. Alternative splicing results in multiple transcript variants.

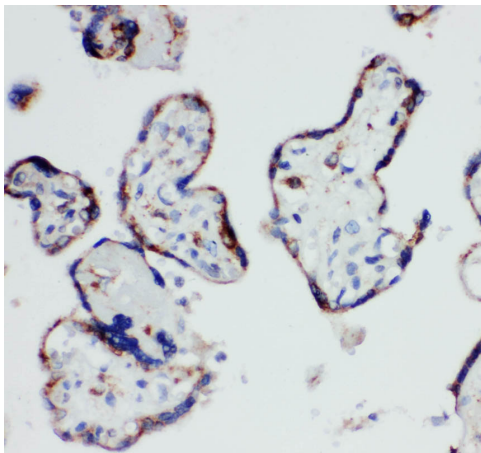
Selected Validation Data



Western blot analysis of HSD17B1 using anti-HSD17B1 antibody (A02198). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

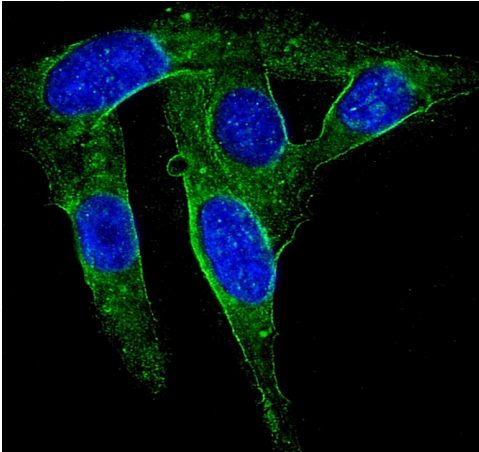
Lane 1: human placenta tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-HSD17B1 antigen affinity purified polyclonal antibody (A02198) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for HSD17B1 at approximately 37 kDa. The expected band size for HSD17B1 is at 35 kDa.



IHC analysis of HSD17B1 using anti-HSD17B1 antibody (A02198) .

HSD17B1 was detected in a paraffin-embedded section of human placenta tissue. The tissue section was incubated with rabbit anti-HSD17B1 Antibody (A02198) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of HSD17B1 using anti-HSD17B1 antibody (A02198).

HSD17B1 was detected in an immunocytochemical section of U2OS cells.

The section was incubated with rabbit anti-HSD17B1 Antibody (A02198) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).