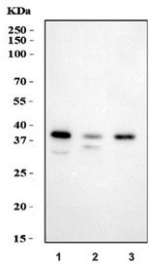
HSD17B1 Antibody (R30694)

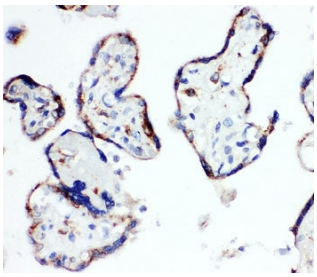
Catalog No.	Formulation	Size
R30694	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

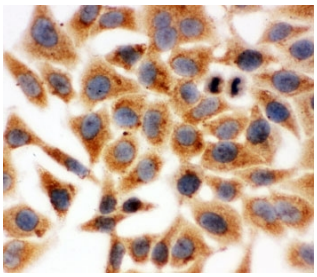
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P14061
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml Immunocytochemistry: 0.5-1ug/ml
Limitations	This HSD17B1 antibody is available for research use only.



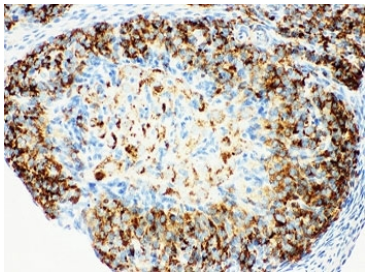
HSD17B1 Antibody Multi-Species WB. Western blot analysis of human T-47D, human 293T, and rat C6 cell lysates using HSD17B1 Antibody demonstrates a prominent immunoreactive band at approximately 35 kDa, consistent with the predicted molecular weight of Hydroxysteroid 17-Beta Dehydrogenase 1 (HSD17B1). HSD17B1 is a steroidogenic enzyme that catalyzes the conversion of estrone to biologically active estradiol and plays a central role in estrogen biosynthesis and steroid hormone metabolism. Comparable band detection across human and rat cell lysates supports recognition of HSD17B1 in multiple species. Minor lower molecular weight bands are observed in the 293T lysate and may represent degradation products, alternatively processed forms, or non-specific antibody reactivity.



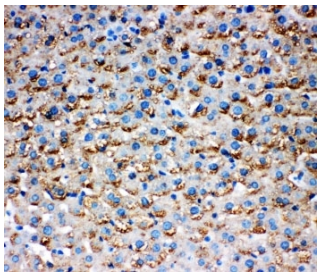
HSD17B1 Antibody Human Placenta IHC. Immunohistochemistry staining of FFPE human placenta tissue using HSD17B1 Antibody demonstrates distinct membranous and cytoplasmic HRP-DAB brown staining within trophoblastic cell populations lining placental villous structures. The staining pattern is consistent with expression of Hydroxysteroid 17-Beta Dehydrogenase 1 (HSD17B1), a steroidogenic enzyme that catalyzes the conversion of estrone to biologically active estradiol and plays a key role in estrogen biosynthesis during pregnancy. Prominent placental staining is consistent with the established involvement of HSD17B1 in steroid hormone metabolism, endocrine regulation, and maintenance of reproductive tissue function. Required HIER: steam tissue sections in pH 6 citrate buffer for 20 minutes before testing.



HSD17B1 Antibody Human HeLa Cell ICC. Immunocytochemistry staining of FFPE human HeLa cells using HSD17B1 Antibody demonstrates strong cytoplasmic HRP-DAB brown staining throughout the majority of cellular populations. The staining pattern is consistent with expression of Hydroxysteroid 17-Beta Dehydrogenase 1 (HSD17B1), a steroidogenic enzyme that catalyzes the conversion of estrone to biologically active estradiol and contributes to regulation of estrogen biosynthesis and steroid hormone metabolism. Predominantly cytoplasmic localization is consistent with the established intracellular enzymatic function of HSD17B1 in hormone-responsive cellular pathways. Required HIER: steam sections in pH 6 citrate buffer for 20 minutes before testing.



HSD17B1 Antibody Rat Ovary IHC. Immunohistochemistry staining of FFPE rat ovary tissue using HSD17B1 Antibody demonstrates strong cytoplasmic HRP-DAB brown staining within ovarian follicular and steroidogenic cell populations surrounding developing follicles. The staining pattern is consistent with expression of Hydroxysteroid 17-Beta Dehydrogenase 1 (HSD17B1), a key enzyme involved in estrogen biosynthesis that catalyzes the conversion of estrone to biologically active estradiol. Prominent ovarian staining is consistent with the established role of HSD17B1 in steroid hormone metabolism, reproductive physiology, follicular development, and endocrine regulation. Required HIER: steam tissue sections in pH 6 citrate buffer for 20 minutes before testing.



HSD17B1 Antibody Rat Liver IHC. Immunohistochemistry staining of FFPE rat liver tissue using HSD17B1 Antibody demonstrates widespread granular cytoplasmic HRP-DAB brown staining throughout hepatocyte populations. The staining pattern is consistent with expression of Hydroxysteroid 17-Beta Dehydrogenase 1 (HSD17B1), a steroidogenic enzyme involved in estrogen biosynthesis and steroid hormone metabolism. Prominent hepatic staining is consistent with the important role of the liver in steroid hormone processing, metabolic regulation, and maintenance of endocrine homeostasis. Required HIER: steam tissue sections in pH 6 citrate buffer for 20 minutes before testing.

Description

HSD17B1 Antibody detects 17-beta-Hydroxysteroid dehydrogenas I, also known as 17-beta-hydroxysteroid dehydrogenase or 17-ketosteroid reductase, an enzyme that is responsible for the interconversion of estrone(E1) and estradiol(E2) as well as the interconversion of androstenedione and testosterone. HSD17B1 gene expression is detected in 34 of 42 (81%) adenomas in all tumor subtypes; HSD17B2 mRNA is detected in 18 of 42(43%) adenomas but not in prolactinomas. Human estrogenic HSD17B1 is an NADP(H)-preferring enzyme. It possesses 11- and 4-fold higher specificity toward NADP(H) over NAD(H) for oxidation and reduction, respectively, as demonstrated by kinetic studies. All four isoforms are variably expressed in human anterior pituitary adenomas, which also show HSD17B enzyme activity, suggesting that it may play an important role in regulating the local cellular levels of estradiol.

Explore our Signal Transduction Antibodies page to discover additional regulatory proteins involved in cellular signaling,

transcriptional control, differentiation pathways, and oncogenic signaling networks.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the HSD17B1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 29-43 (QSFKVYATLRDLKTQ-human) were used as the immunogen for this HSD17B1 antibody.

Storage

After reconstitution, the HSD17B1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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