

**Goat Anti-HSD3B1 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1543a****Specification**

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**Goat Anti-HSD3B1 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P14060</a>
Other Accession	<a href="#">NP_000853</a> , <a href="#">3283</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	42252

**Goat Anti-HSD3B1 Antibody - Additional Information****Gene ID** 3283**Other Names**

3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 1, 3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type I, 3-beta-HSD I, Trophoblast antigen FDO161G, 3-beta-hydroxy-Delta(5)-steroid dehydrogenase, 1.1.1.145, 3-beta-hydroxy-5-ene steroid dehydrogenase, Progesterone reductase, Steroid Delta-isomerase, 5.3.3.1, Delta-5-3-ketosteroid isomerase, HSD3B1, 3BH, HSDB3A

**Dilution**

WB~~1:1000  
E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-HSD3B1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-HSD3B1 Antibody - Protein Information****Name** HSD3B1 ([HGNC:5217](#))

**Synonyms** 3BH, HSDB3A**Function**

A bifunctional enzyme responsible for the oxidation and isomerization of 3beta-hydroxy-Delta(5)-steroid precursors to 3-oxo- Delta(4)-steroids, an essential step in steroid hormone biosynthesis. Specifically catalyzes the conversion of pregnenolone to progesterone, 17alpha-hydroxypregnenolone to 17alpha-hydroxyprogesterone, dehydroepiandrosterone (DHEA) to 4-androstenedione, and androstenediol to testosterone. Additionally, catalyzes the interconversion between 3beta-hydroxy and 3-oxo-5alpha-androstane steroids controlling the bioavailability of the active forms. Specifically converts dihydrotestosterone to its inactive form 5alpha-androstenediol, that does not bind androgen receptor/AR. Also converts androstenedione, a precursor of testosterone and estrone, to epiandrosterone (PubMed:<a href="http://www.uniprot.org/citations/1401999" target="\_blank">1401999</a>, PubMed:<a href="http://www.uniprot.org/citations/2139411" target="\_blank">2139411</a>). Expected to use NAD(+) as preferred electron donor for the 3beta-hydroxy-steroid dehydrogenase activity and NADPH for the 3-ketosteroid reductase activity (Probable).

**Cellular Location**

Endoplasmic reticulum membrane; Single-pass membrane protein. Mitochondrion membrane; Single-pass membrane protein

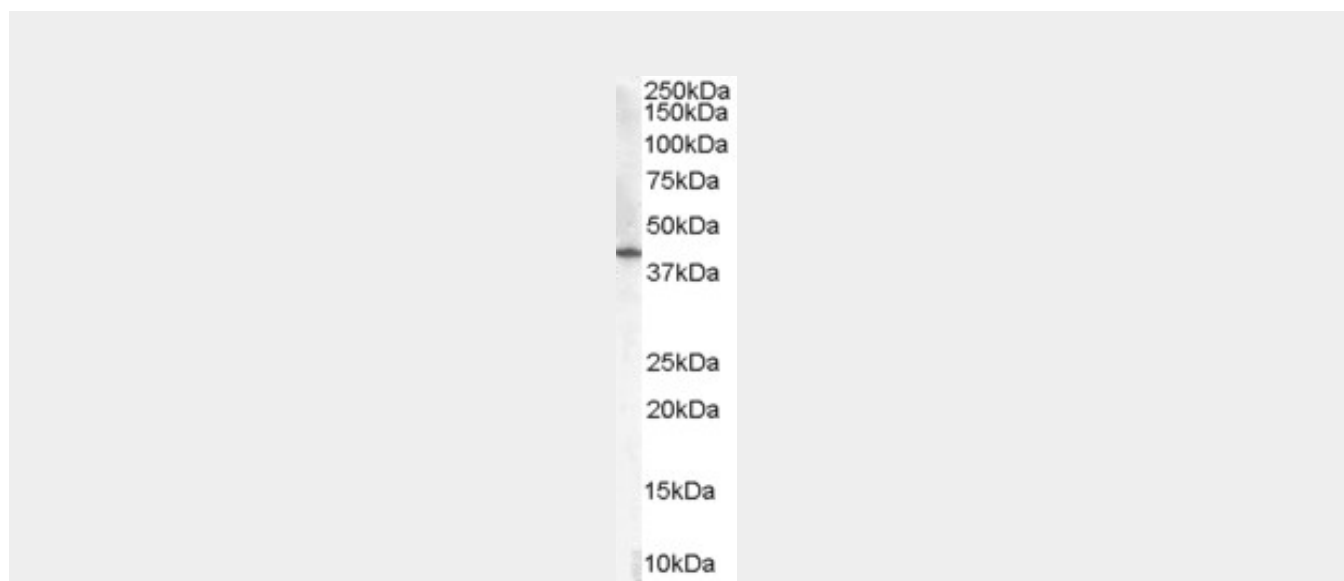
**Tissue Location**

Placenta and skin (PubMed:1401999). Predominantly expressed in mammary gland tissue.

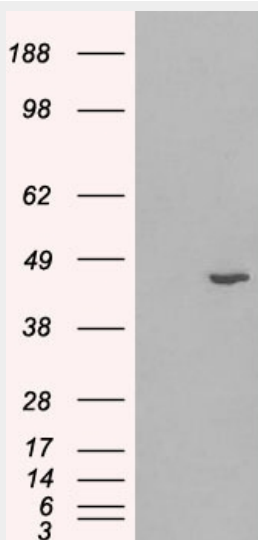
**Goat Anti-HSD3B1 Antibody - Protocols**

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](#)

**Goat Anti-HSD3B1 Antibody - Images**

AF1543a (0.01 µg/ml) staining of Human Placenta lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing Human HSD3B1 (RC204497) and probed with AF1543a (mock transfection in first lane), tested by Origene.

#### Goat Anti-HSD3B1 Antibody - References

Association of HSD3B1 and HSD3B2 gene polymorphisms with essential hypertension, aldosterone level, and left ventricular structure. Shimodaira M, et al. Eur J Endocrinol, 2010 Oct. PMID 20660004.

Comprehensive analysis of common genetic variation in 61 genes related to steroid hormone and insulin-like growth factor-I metabolism and breast cancer risk in the NCI breast and prostate cancer cohort consortium. Canzian F, et al. Hum Mol Genet, 2010 Oct 1. PMID 20634197.

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

A Large-scale genetic association study of esophageal adenocarcinoma risk. Liu CY, et al. Carcinogenesis, 2010 Jul. PMID 20453000.

The functions of key residues in the inhibitor, substrate and cofactor sites of human 3beta-hydroxysteroid dehydrogenase type 1 are validated by mutagenesis. Thomas JL, et al. J Steroid Biochem Mol Biol, 2010 Jun. PMID 20420909.