

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

Specification

Goat Anti-HSD3B1 Antibody - Product Information

Application	WB
Primary Accession	P14060
Other Accession	NP_000853 , 3283
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

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:1401999, PubMed:2139411). 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

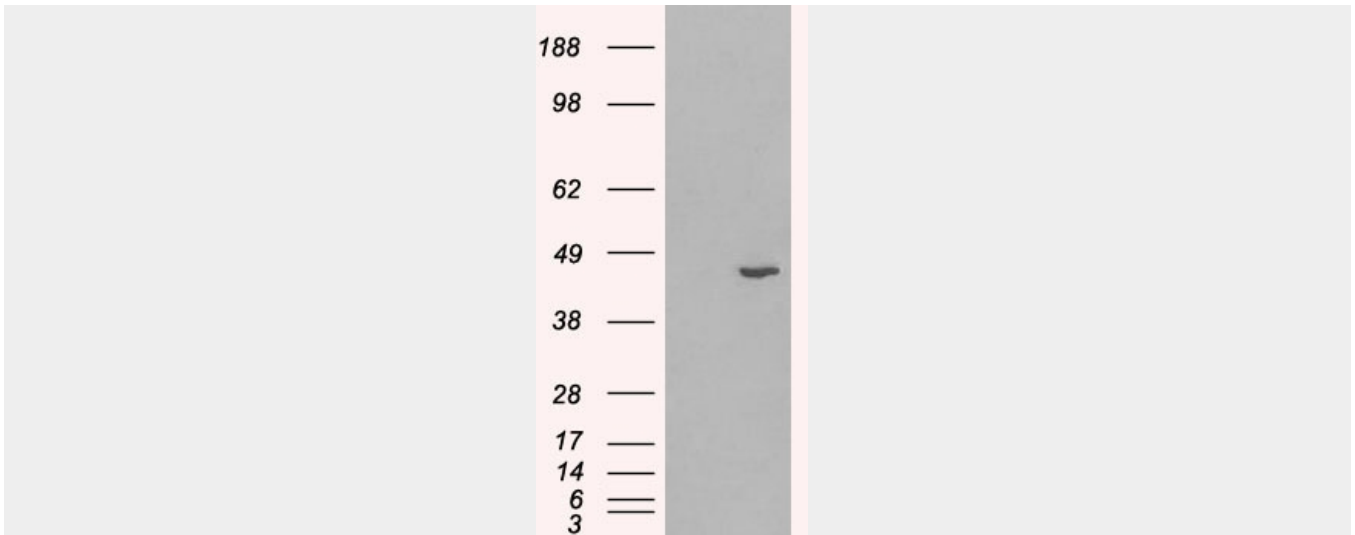
Provided below are standard protocols that you may find useful for product applications.

- [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.