

HSD3B1 Rabbit pAb

Catalog # AP98509

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P14060
Other Accession	P14060
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42252
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HSD3B1
Epitope Specificity	301-373/373
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the 3-beta-HSD family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a bifunctional enzyme that catalyzes the oxidative conversion of delta(5)-ene-3-beta-hydroxy steroid, and the oxidative conversion of ketosteroids. It plays a crucial role in the biosynthesis of all classes of hormonal steroids. This gene is predominantly expressed in the adrenals and the gonads. Mutations in this gene are associated with 3-beta-hydroxysteroid dehydrogenase, type II, deficiency. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Oct 2009]

Additional Information

Gene ID	3283
Other Names	3BETAHSD; HSD3B; HSDB3; HSDB3A; SDR11E1; 3-beta-HSD I; D3Ertd383e; 3BHS1_HUMAN; HSD3B1; 3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type I (3-beta-HSD I); 3-beta-hydroxy-5-ene steroid dehydrogenase; 3-beta-hydroxy-Delta(5)-steroid dehydrogenase; 3-beta-hydroxysteroid 3-dehydrogenase; Delta-5-3-ketosteroid isomerase; Dihydrotestosterone oxidoreductase; Steroid Delta-isomerase; Trophoblast antigen FDO161G; 3BH; 3BHS2_MOUSE; Hsd3b2; 3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type II (3-beta-HSD II); 3BHS1_RAT; hydroxy-delta-5-steroid dehydrogenase, 3 beta- and steroid delta-isomerase 1; short chain dehydrogenase/reductase family 11E, member 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

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-androstanediol, 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.