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HSD3B1 Antibody

Rabbit mAb
Catalog # AP92625

Product Information

Application	WB, IF, ICC
Primary Accession	P14060
Reactivity	Human
Clonality	Monoclonal
Other Names	3-beta-HSD I; 3BETAHSD; 3BH; 3BHSD; HSD3B; HSD3B1; HSDB3; HSDB3A; SDR11E1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	42252

Additional Information

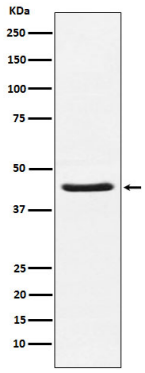
Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human HSD3B1
Description	3-beta-HSD is a bifunctional enzyme, that catalyzes the oxidative conversion of Delta(5)-ene-3-beta-hydroxy steroid, and the oxidative conversion of ketosteroids.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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 bioavalability of the active forms. Specifically converts dihydrotestosterone to its inactive form 5alpha-androstanediol, that does not bind androgen receptor/AR. Also converts androstanedione, 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.

Images



Western blot analysis of HSD3B1 expression in Human placenta lysate.