10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# HSD3B1 Rabbit pAb

Catalog # AP98509

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | P14060 |
| **Other Accession** | P14060 |
| **Reactivity** | Rat, Mouse |
| **Predicted** | Human, Dog, Horse |
| **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

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| **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 |

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| **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

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| **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. |

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