

**HSD3B1 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14585a****Specification**

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**HSD3B1 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P14060](#)**HSD3B1 Antibody (N-term) Blocking Peptide - 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, 3-beta-hydroxy-5-ene steroid dehydrogenase, Progesterone reductase, Steroid Delta-isomerase, Delta-5-3-ketosteroid isomerase, HSD3B1, 3BH, HSDB3A

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**HSD3B1 Antibody (N-term) Blocking Peptide - 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 androstanedione, 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.

**HSD3B1 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**HSD3B1 Antibody (N-term) Blocking Peptide - Images****HSD3B1 Antibody (N-term) Blocking Peptide - Background**

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. The 3-beta-HSD enzymatic system plays a crucial role in the biosynthesis of all classes of hormonal steroids. Efficiently catalyzes the transformation of pregnenolone to progesterone, 17-alpha-hydroxypregnenolone to 17-alpha-hydroxyprogesterone, DHEA to 4-androstenedione, dihydrotestosterone to 5-alpha-androstane-3 beta,17 beta-diol, dehydroepiandrosterone to androstenedione and 5-alpha-androstan-3 beta,17 beta-diol to 5-alpha-dihydrotestosterone.

**HSD3B1 Antibody (N-term) Blocking Peptide - References**

Canzian, F., et al. Hum. Mol. Genet. 19(19):3873-3884(2010) Shimodaira, M., et al. Eur. J. Endocrinol. 163(4):671-680(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010) Thomas, J.L., et al. J. Steroid Biochem. Mol. Biol. 120 (4-5), 192-199 (2010) :