

[14672942](http://www.uniprot.org/citations/14672942), PubMed: [1530633](http://www.uniprot.org/citations/1530633), PubMed: [19218247](http://www.uniprot.org/citations/19218247), PubMed: [7650035](http://www.uniprot.org/citations/7650035)). Displays the ability to catalyze both oxidation and reduction in vitro, but most probably acts as a reductase in vivo since the oxidase activity measured in vitro is inhibited by physiological concentration of NADPH (PubMed: [14672942](http://www.uniprot.org/citations/14672942)). Acts preferentially as a 3-alpha-hydroxysteroid dehydrogenase (HSD) with a subsidiary 3-beta-HSD activity (PubMed: [14672942](http://www.uniprot.org/citations/14672942)). Catalyzes efficiently the transformation of the potent androgen 5-alpha-dihydrotestosterone (5alpha-DHT or 17beta-hydroxy-5alpha-androstan-3-one) into the less active form, 5-alpha-androstan-3-alpha,17-beta-diol (3-alpha-diol) (PubMed: [10998348](http://www.uniprot.org/citations/10998348), PubMed: [11158055](http://www.uniprot.org/citations/11158055), PubMed: [14672942](http://www.uniprot.org/citations/14672942)). Catalyzes the reduction of estrone into 17beta-estradiol but with low efficiency (PubMed: [14672942](http://www.uniprot.org/citations/14672942)). Metabolizes a broad spectrum of natural and synthetic therapeutic steroid and plays an important role in metabolism of androgens, estrogens, progesterone and conjugated steroids (PubMed: [10998348](http://www.uniprot.org/citations/10998348), PubMed: [14672942](http://www.uniprot.org/citations/14672942), PubMed: [19218247](http://www.uniprot.org/citations/19218247)). Catalyzes the biotransformation of the pesticide chlordecone (kepone) to its corresponding alcohol leading to increased biliary excretion of the pesticide and concomitant reduction of its neurotoxicity since bile is the major excretory route (PubMed: [2427522](http://www.uniprot.org/citations/2427522)).

Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q04828}

Tissue Location

Liver specific.

HSD3a Polyclonal 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](#)

HSD3a Polyclonal Antibody - Images