

HSD3a Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58271

Specification

HSD3a Polyclonal Antibody - Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P17516
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	37067

HSD3a Polyclonal Antibody - Additional Information

Gene ID 1109

Other Names

Aldo-keto reductase family 1 member C4, 1.1.1.-, 1.1.1.209, 1.1.1.210, 1.1.1.51, 1.1.1.53, 1.1.1.62, 3-alpha-hydroxysteroid dehydrogenase type I, 3-alpha-HSD1, 1.1.1.357, 3alpha-hydroxysteroid 3-dehydrogenase, Chlordecone reductase, CDR, 1.1.1.225, Dihydrodiol dehydrogenase 4, DD-4, DD4, HAKRA, AKR1C4, CHDR

Dilution

IHC-P~~N/A
IHC-F~~N/A
IF~~1:50~200
E~~N/A

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.

HSD3a Polyclonal Antibody - Protein Information

Name AKR1C4

Synonyms CHDR

Function

Cytosolic aldo-keto reductase that catalyzes the NADH and NADPH-dependent reduction of ketosteroids to hydroxysteroids. Liver specific enzyme that acts as an NAD(P)(H)-dependent 3-, 17- and 20- ketosteroid reductase on the steroid nucleus and side chain (PubMed:10634139, PubMed:10998348, PubMed:11158055, PubMed:14672942, PubMed:1530633, PubMed:19218247, PubMed: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