

# HSD3a Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP58271

## Product Information

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<b>Application</b>	IHC-P, IHC-F, IF, E
<b>Primary Accession</b>	<a href="#">P17516</a>
<b>Reactivity</b>	Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	37067

## Additional Information

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<b>Gene ID</b>	1109
<b>Other Names</b>	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
<b>Dilution</b>	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
<b>Storage</b>	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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<b>Name</b>	AKR1C4
<b>Synonyms</b>	CHDR
<b>Function</b>	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: <a href="#">10634139</a> , PubMed: <a href="#">10998348</a> , PubMed: <a href="#">11158055</a> , PubMed: <a href="#">14672942</a> , PubMed: <a href="#">1530633</a> , PubMed: <a href="#">19218247</a> , PubMed: <a href="#">7650035</a> ). 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: <a href="#">14672942</a> ). Acts preferentially as a 3-alpha-hydroxysteroid dehydrogenase (HSD) with a subsidiary 3-beta-HSD activity (PubMed: <a href="#">14672942</a> ). 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](#), PubMed:[11158055](#), PubMed:[14672942](#)). Catalyzes the reduction of estrone into 17beta-estradiol but with low efficiency (PubMed:[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](#), PubMed:[14672942](#), PubMed:[19218247](#)). Catalyzes the biotransformation of the pesticide chlordcone (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](#)).

<b>Cellular Location</b>	Cytoplasm, cytosol {ECO:0000250   UniProtKB:Q04828}
<b>Tissue Location</b>	Liver specific.

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