

**AKR1C2 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP50743****Specification**

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**AKR1C2 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P52895</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>38,16 KDa</b>
Antigen Region	<b>34-63</b>

**AKR1C2 Antibody - Additional Information****Gene ID** 1646**Other Names**

Aldo-keto reductase family 1 member C2, 1---, 3-alpha-HSD3, Chlordecone reductase homolog HAKRD, Dihydrodiol dehydrogenase 2, DD-2, DD2, Dihydrodiol dehydrogenase/bile acid-binding protein, DD/BABP, Trans-1, 2-dihydrobenzene-1, 2-diol dehydrogenase, Type III 3-alpha-hydroxysteroid dehydrogenase, AKR1C2, DDH2

**Dilution**

WB~~1:1000

**Format**

Rabbit IgG in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

**Storage Conditions**

-20°C

**AKR1C2 Antibody - Protein Information****Name** AKR1C2**Synonyms** DDH2**Function**

Cytosolic aldo-keto reductase that catalyzes the NADH and NADPH-dependent reduction of ketosteroids to hydroxysteroids (PubMed: [19218247](http://www.uniprot.org/citations/19218247)). Most probably acts as a reductase in vivo since the oxidase activity measured in vitro is inhibited by physiological concentrations of NADPH (PubMed: [14672942](http://www.uniprot.org/citations/14672942)). Displays a broad positional specificity acting on positions 3, 17 and 20 of steroids and regulates the metabolism of hormones like estrogens and androgens (PubMed: <a

<http://www.uniprot.org/citations/10998348> target="\_blank">10998348</a>). Works in concert with the 5-alpha/5-beta-steroid reductases to convert steroid hormones into the 3-alpha/5-alpha and 3- alpha/5-beta-tetrahydrosteroids. Catalyzes the inactivation of the most potent androgen 5-alpha-dihydrotestosterone (5-alpha-DHT) to 5-alpha-androstane-3-alpha,17-beta-diol (3-alpha-diol) (PubMed:<a href="http://www.uniprot.org/citations/15929998" target="\_blank">15929998</a>, PubMed:<a href="http://www.uniprot.org/citations/17034817" target="\_blank">17034817</a>, PubMed:<a href="http://www.uniprot.org/citations/17442338" target="\_blank">17442338</a>, PubMed:<a href="http://www.uniprot.org/citations/8573067" target="\_blank">8573067</a>). Also specifically able to produce 17beta-hydroxy-5alpha-androstan-3-one/5alphaDHT (PubMed:<a href="http://www.uniprot.org/citations/10998348" target="\_blank">10998348</a>). May also reduce conjugated steroids such as 5alpha- dihydrotestosterone sulfate (PubMed:<a href="http://www.uniprot.org/citations/19218247" target="\_blank">19218247</a>). Displays affinity for bile acids (PubMed:<a href="http://www.uniprot.org/citations/8486699" target="\_blank">8486699</a>).

#### Cellular Location

Cytoplasm, cytosol.

#### Tissue Location

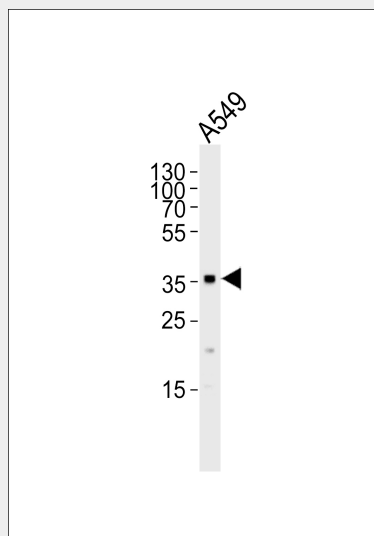
Expressed in fetal testes. Expressed in fetal and adult adrenal glands.

### AKR1C2 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](#)

### AKR1C2 Antibody - Images



Western blot analysis of lysate from A549 cell line, using AKR1C2 Antibody (AP50743). AP50743 was diluted at 1:1000. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.

#### **AKR1C2 Antibody - Background**

Works in concert with the 5-alpha/5-beta-steroid reductases to convert steroid hormones into the 3-alpha/5-alpha and 3-alpha/5-beta-tetrahydrosteroids. Catalyzes the inactivation of the most potent androgen 5-alpha-dihydrotestosterone (5-alpha-DHT) to 5-alpha-androstane-3-alpha,17-beta-diol (3-alpha-diol). Has a high bile-binding ability.

#### **AKR1C2 Antibody - References**

Qin K.-N., et al. J. Steroid Biochem. Mol. Biol. 46:673-679(1993).  
Ciaccio P.J., et al. Biochim. Biophys. Acta 1186:129-132(1994).  
Qin K.-N., et al. Gene 149:357-361(1994).  
Dufort I., et al. Biochem. Biophys. Res. Commun. 228:474-479(1996).  
Shiraishi H., et al. Biochem. J. 334:399-405(1998).