

**Anti-AKR1C1/C2 Picoband Antibody**  
Catalog # ABO11654**Specification****Anti-AKR1C1/C2 Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P52895</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Aldo-keto reductase family 1 member C1/C2(AKR1C1/C2) detection. Tested with WB in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-AKR1C1/C2 Picoband 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, 1.3.1.20, Type III 3-alpha-hydroxysteroid dehydrogenase, 1.1.1.357, AKR1C2, DDH2

**Calculated MW**

36735 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Cytoplasm .

**Tissue Specificity**

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

**Protein Name**

Aldo-keto reductase family 1 member C1/C2

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

E. coli-derived human AKR1C1/C2 recombinant protein (Position: M1-K123).

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After r<sup>o</sup> Constitution, at 4°C for one month. It° Can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-AKR1C1/C2 Picoband 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:<a href="http://www.uniprot.org/citations/19218247" target="\_blank">19218247</a>). Most probably acts as a reductase in vivo since the oxidase activity measured in vitro is inhibited by physiological concentrations of NADPH (PubMed:<a href="http://www.uniprot.org/citations/14672942" target="\_blank">14672942</a>). 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 href="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.

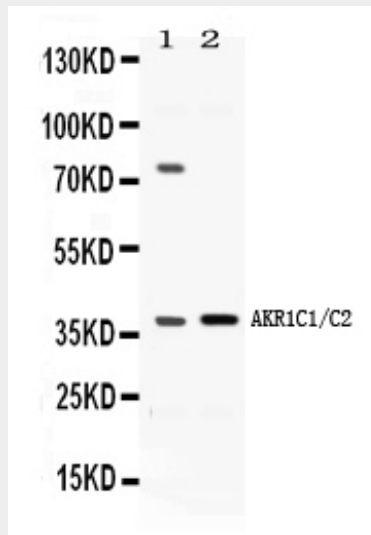
**Anti-AKR1C1/C2 Picoband Antibody - Protocols**

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](#)

#### Anti-AKR1C1/C2 Picoband Antibody - Images



Western blot analysis of AKR1C1/C2 expression in rat liver extract (lane 1) and HELA whole cell lysates (lane 2). AKR1C1/C2 at 37KD was detected using rabbit anti- AKR1C1/C2 Antigen Affinity purified polyclonal antibody (Catalog # ABO11654) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

#### Anti-AKR1C1/C2 Picoband Antibody - Background

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols using NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme binds bile acid with high affinity, and shows minimal 3- $\alpha$ -hydroxysteroid dehydrogenase activity. And this gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. Three transcript variants encoding two different isoforms have been found for this gene.