10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-AKR1C1/C2 Picoband Antibody

Catalog # ABO11654

Specification

Anti-AKR1C1/C2 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P52895
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

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 Na2HPO4, 0.05mg NaN3.

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˚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: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). 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:10998348). 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:15929998, PubMed:17034817, PubMed:17442338, PubMed:8573067). Also specifically able to produce 17beta-hydroxy-5alpha-androstan-3-one/5alphaDHT (PubMed:10998348). May also reduce conjugated steroids such as 5alpha- dihydrotestosterone sulfate (PubMed:19218247). Displays affinity for bile acids (PubMed:8486699).

Cellular Location
Cytoplasm, cytosol.

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

Anti-AKR1C1/C2 Picoband Antibody - Protocols

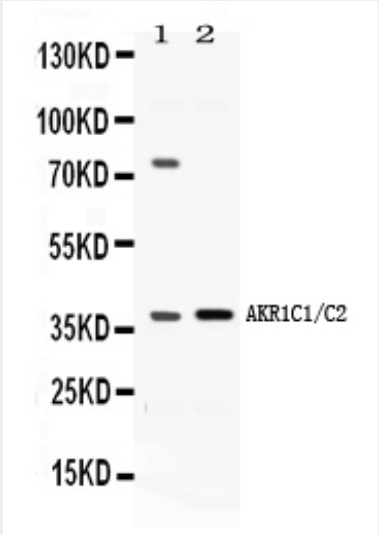
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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 ??g/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.