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AKR1C2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12246B

Specification

AKR1C2 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	P52895
Other Accession	Q95JH7, Q04828, NP_995317.1
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	36735
Antigen Region	296-323

AKR1C2 Antibody (C-term) - Additional Information

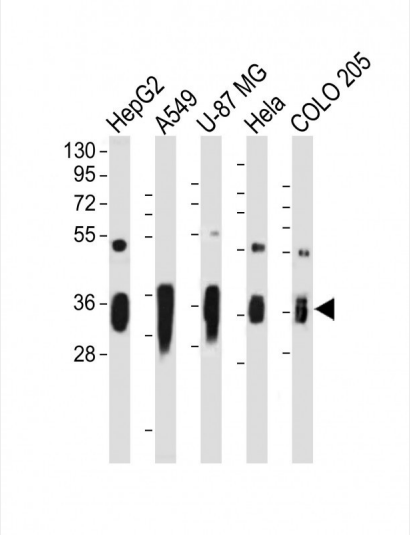
Gene ID 1646

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

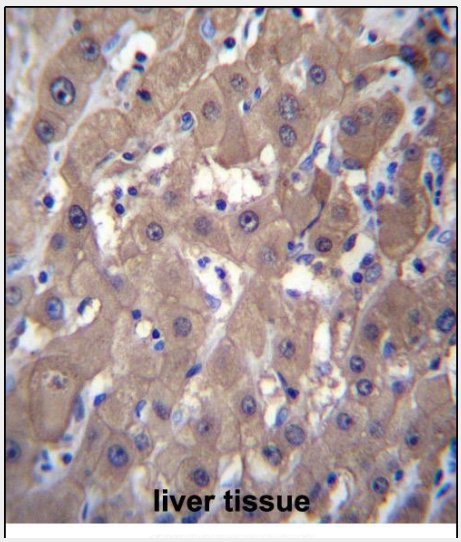
Target/Specificity
This AKR1C2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 296-323 amino acids from the C-terminal region of human AKR1C2.

Dilution
WB~~1:2000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.



All lanes : Anti-AKR1C2 Antibody (C-term) at 1:2000 dilution Lane 1: HepG2 whole cell lysate Lane 2: A549 whole cell lysate Lane 3: U-87 MG whole cell lysate Lane 4: Hela whole cell lysate Lane 5: COLO 205 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AKR1C2 Antibody (C-term) (Cat.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
AKR1C2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AKR1C2 Antibody (C-term) - 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

#AP12246b)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of AKR1C2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

AKR1C2 Antibody (C-term) - 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. This
gene shares high sequence identity with three other gene members
and is clustered with those three genes at chromosome 10p15-p14.

AKR1C2 Antibody (C-term) - References

Setlur, S.R., et al. Cancer Epidemiol. Biomarkers Prev. 19(1):229-239(2010)
Wang, X., et al. PLoS ONE 5 (8), E11934 (2010) :
Reding, K.W., et al. Am. J. Epidemiol. 170(10):1241-1249(2009)
Cogliati, C., et al. FEBS J. 276(20):6011-6023(2009)
Davies, N.J., et al. Cancer Res. 69(11):4769-4775(2009)

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.

AKR1C2 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

AKR1C2 Antibody (C-term) - Citations

- Modulation of AKR1C2 by curcumin decreases testosterone production in prostate cancer.