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AKR1C2 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP12246b

Specification

AKR1C2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P52895

AKR1C2 Antibody (C-term) Blocking peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

AKR1C2 Antibody (C-term) Blocking peptide - 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:<a

href="http://www.uniprot.org/citations/17034817" target="_blank">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.

AKR1C2 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

AKR1C2 Antibody (C-term) Blocking peptide - Images

AKR1C2 Antibody (C-term) Blocking peptide - Background

This gene encodes a member of the aldo/keto reductasesuperfamily, which consists of more than 40 known enzymes andproteins. These enzymes catalyze the conversion of aldehydes andketones to their corresponding alcohols using NADH and/or NADPH ascofactors. The enzymes display overlapping but distinct substratespecificity. This enzyme binds bile acid with high affinity, andshows minimal 3-alpha-hydroxysteroid dehydrogenase activity. Thisgene shares high sequence identity with three other gene membersand is clustered with those three genes at chromosome 10p15-p14.

AKR1C2 Antibody (C-term) Blocking peptide - 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)