

AKR1C1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP50969

Product Information

Application	WB, IHC-P
Primary Accession	Q04828
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36788

Additional Information

Gene ID	1645
Other Names	Aldo-keto reductase family 1 member C1, 111-, 20-alpha-hydroxysteroid dehydrogenase, 20-alpha-HSD, Chlordecone reductase homolog HAKRC, Dihydrodiol dehydrogenase 1/2, DD1/DD2, High-affinity hepatic bile acid-binding protein, HBAB, Indanol dehydrogenase, Trans-1, 2-dihydrobenzene-1, 2-diol dehydrogenase, AKR1C1, DDH, DDH1
Dilution	WB~~1:1000 IHC-P~~N/A
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	AKR1C1
Synonyms	DDH, DDH1
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). 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 all tissues tested including liver, prostate, testis, adrenal gland,

brain, uterus, mammary gland and keratinocytes. Highest levels found in liver, mammary gland and brain

Background

Converts progesterone to its inactive form, 20-alpha- dihydroxyprogesterone (20-alpha-OHP). In the liver and intestine, may have a role in the transport of bile. May have a role in monitoring the intrahepatic bile acid concentration. Has a low bile-binding ability. May play a role in myelin formation.

References

- Stolz A.,et al.J. Biol. Chem. 268:10448-10457(1993).
Lou H.,et al.J. Biol. Chem. 269:8416-8422(1994).
Ciaccio P.J.,et al.J. Biol. Chem. 269:15558-15562(1994).
Khanna M.,et al.J. Steroid Biochem. Mol. Biol. 53:41-46(1995).
Nishizawa M.,et al.Genes Cells 5:111-125(2000).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.