

Anti-AKR1C3 Rabbit Monoclonal Antibody
Catalog # ABO15544

Specification

Anti-AKR1C3 Rabbit Monoclonal Antibody - Product Information

Application	WB, IF, ICC, IP, FC
Primary Accession	P42330
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-AKR1C3 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human.

Anti-AKR1C3 Rabbit Monoclonal Antibody - Additional Information

Gene ID 8644

Other Names

Aldo-keto reductase family 1 member C3, 1.1.1.-, 1.1.1.210, 1.1.1.53, 1.1.1.62, 17-beta-hydroxysteroid dehydrogenase type 5, 17-beta-HSD 5, 3-alpha-HSD type II, brain, 3-alpha-hydroxysteroid dehydrogenase type 2, 3-alpha-HSD type 2, 1.1.1.357, Chlordecone reductase homolog HAKRb, Dihydrodiol dehydrogenase 3, DD-3, DD3, Dihydrodiol dehydrogenase type I, HA1753, Prostaglandin F synthase, PGFS, 1.1.1.188, Testosterone 17-beta-dehydrogenase 5, 1.1.1.239, 1.1.1.64, AKR1C3

Calculated MW

37 kDa KDa

Application Details

WB 1:500-1:1000
ICC/IF 1:50-1:200
IP 1:30
FC 1:50

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human AKR1C3

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-AKR1C3 Rabbit Monoclonal Antibody - Protein Information

Name AKR1C3

Function

Cytosolic aldo-keto reductase that catalyzes the NADH and NADPH-dependent reduction of ketosteroids to hydroxysteroids. Acts as a NAD(P)(H)-dependent 3-, 17- and 20-ketosteroid reductase on the steroid nucleus and side chain and regulates the metabolism of androgens, estrogens and progesterone (PubMed: [10622721](http://www.uniprot.org/citations/10622721), PubMed: [11165022](http://www.uniprot.org/citations/11165022), PubMed: [7650035](http://www.uniprot.org/citations/7650035), PubMed: [9415401](http://www.uniprot.org/citations/9415401), PubMed: [9927279](http://www.uniprot.org/citations/9927279)). Displays the ability to catalyze both oxidation and reduction in vitro, but most probably acts as a reductase in vivo since the oxidase activity measured in vitro is inhibited by physiological concentration of NADPH (PubMed: [11165022](http://www.uniprot.org/citations/11165022), PubMed: [14672942](http://www.uniprot.org/citations/14672942)). Acts preferentially as a 17- ketosteroid reductase and has the highest catalytic efficiency of the AKR1C enzyme for the reduction of delta4-androstenedione to form testosterone (PubMed: [20036328](http://www.uniprot.org/citations/20036328)). Reduces prostaglandin (PG) D2 to 11beta-prostaglandin F2, progesterone to 20alpha-hydroxyprogesterone and estrone to 17beta-estradiol (PubMed: [10622721](http://www.uniprot.org/citations/10622721), PubMed: [10998348](http://www.uniprot.org/citations/10998348), PubMed: [11165022](http://www.uniprot.org/citations/11165022), PubMed: [15047184](http://www.uniprot.org/citations/15047184), PubMed: [19010934](http://www.uniprot.org/citations/19010934), PubMed: [20036328](http://www.uniprot.org/citations/20036328)). Catalyzes the transformation of the potent androgen dihydrotestosterone (DHT) into the less active form, 5-alpha-androstan-3-alpha,17-beta-diol (3-alpha-diol) (PubMed: [10557352](http://www.uniprot.org/citations/10557352), PubMed: [10998348](http://www.uniprot.org/citations/10998348), PubMed: [11165022](http://www.uniprot.org/citations/11165022), PubMed: [14672942](http://www.uniprot.org/citations/14672942), PubMed: [7650035](http://www.uniprot.org/citations/7650035), PubMed: [9415401](http://www.uniprot.org/citations/9415401)). Also displays retinaldehyde reductase activity toward 9-cis-retinal (PubMed: [21851338](http://www.uniprot.org/citations/21851338)).

Cellular Location

Cytoplasm.

Tissue Location

Expressed in many tissues including adrenal gland, brain, kidney, liver, lung, mammary gland, placenta, small intestine, colon, spleen, prostate and testis. High expression in prostate and mammary gland. In the prostate, higher levels in epithelial cells than in stromal cells. In the brain, expressed in medulla, spinal cord, frontotemporal lobes, thalamus, subthalamic nuclei and amygdala. Weaker expression in the hippocampus, substantia nigra and caudate

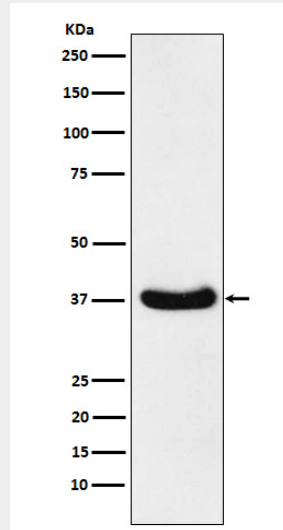
Anti-AKR1C3 Rabbit Monoclonal Antibody - Protocols

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

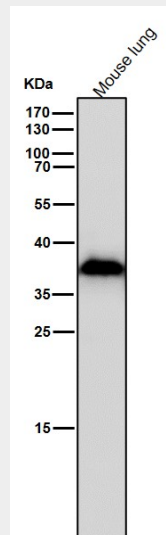
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

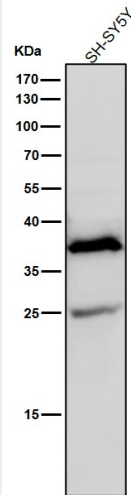
Anti-AKR1C3 Rabbit Monoclonal Antibody - Images



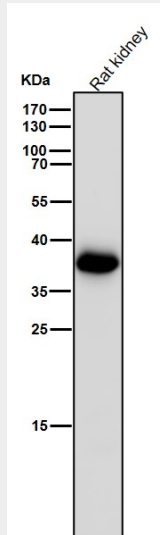
Western blot analysis of AKR1C3 expression in A549 cell lysate.



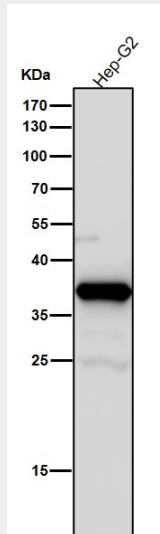
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



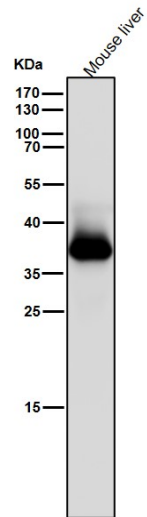
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



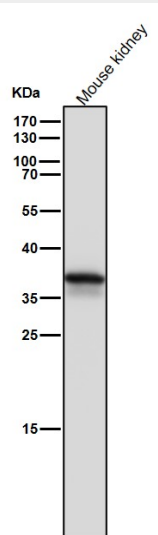
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



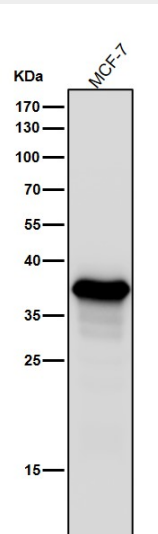
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