

**Anti-AKR1C3 Rabbit Monoclonal Antibody**  
Catalog # ABO15544

**Specification**

**Anti-AKR1C3 Rabbit Monoclonal Antibody - Product Information**

Application	WB, IF, ICC, IP, FC
Primary Accession	<a href="#">P42330</a>
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<br>ICC/IF 1:50-1:200<br>IP 1:30<br>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

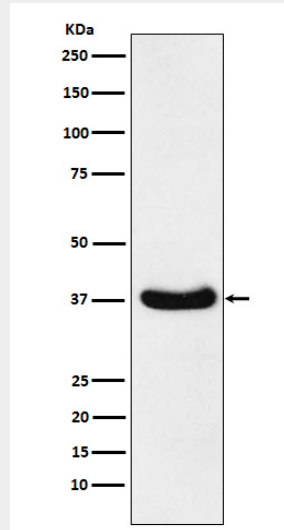
## Anti-AKR1C3 Rabbit Monoclonal Antibody - Protocols

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

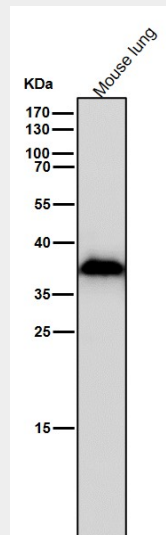
- [Western Blot](#)

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

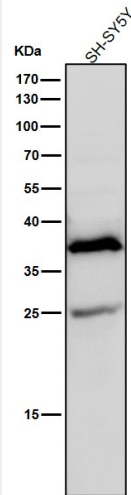
### Anti-AKR1C3 Rabbit Monoclonal Antibody - Images



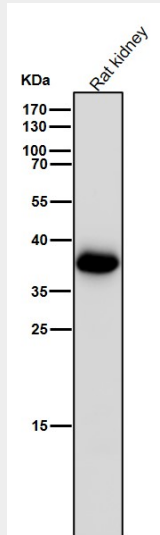
Western blot analysis of AKR1C3 expression in A549 cell lysate.



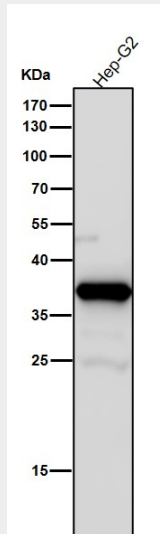
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



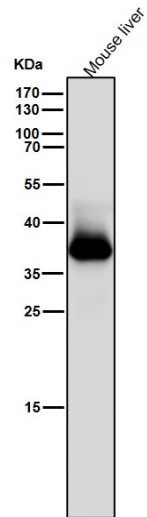
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



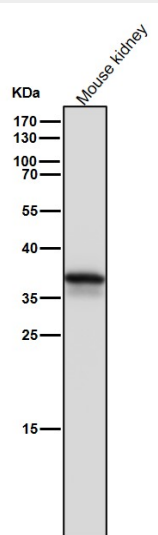
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



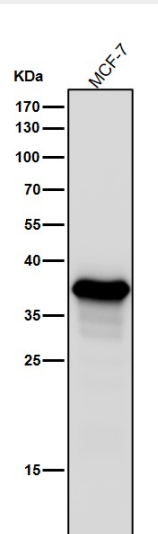
All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



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