

AKR1C3 Polyclonal Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11765**Specification**

AKR1C3 Polyclonal Antibody - Product Information

Application	WB
Primary Accession	P42330
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	36853

AKR1C3 Polyclonal Antibody - Additional Information**Gene ID** 8644

Positive Control	Western blot
Application & Usage	Western blot: 1-4 µg/ml, Dot blot: 1-4 µg/ml
Alias Symbol	AKR1C3
Other Names	
Aldo-keto reductase family 1, member C3, DD3, DDX, HA1753, HAKRB, HAKRe, hluPGFS, HSD17B5	

Appearance
Colourless liquid

Formulation
100 µg (0.5 mg/ml) of antibody in PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin® and 50 % glycerol.

Reconstitution & Storage
-20 °C**Background Descriptions**

Precautions
AKR1C3 Polyclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

AKR1C3 Polyclonal 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, PubMed:11165022, PubMed:7650035, PubMed:9415401, PubMed: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:14672942, PubMed:11165022). 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). Reduces prostaglandin (PG) D2 to 11beta-prostaglandin F2, progesterone to 20alpha-hydroxyprogesterone and estrone to 17beta-estradiol (PubMed:15047184, PubMed:20036328, PubMed:10622721, PubMed:11165022, PubMed:10998348, PubMed:19010934). 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:10998348, PubMed:14672942, PubMed:11165022, PubMed:7650035, PubMed:9415401, PubMed:10557352). Also displays retinaldehyde reductase activity toward 9-cis-retinal (PubMed:21851338).

Cellular Location

Cytoplasm.

Tissue Location

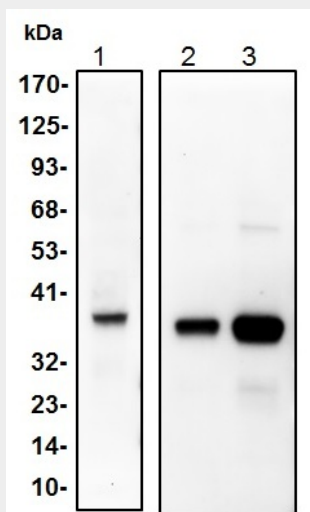
Expressed in many tissues including adrenal gland, brain, kidney, liver, lung, mammary gland, placenta, small intestine, colon, spleen, prostate and testis. High expression in prostate and mammary gland. In the prostate, higher levels in epithelial cells than in stromal cells. In the brain, expressed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

AKR1C3 Polyclonal 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](#)

AKR1C3 Polyclonal Antibody - Images



Western blot analysis of h AKR1C3 using anti-h AKR1C3 antibody: Lane1(Hela cell lysate); Lane2(h AKR1C3,10ng); Lane3(h AKR1C3,50ng)

AKR1C3 Polyclonal Antibody - Background

Aldo-keto reductase family 1 member C3 in humans is encoded by the AKR1C3 gene. This enzyme catalyzes the reduction of prostaglandin (PG) D₂, PGH₂ and phenanthrenequinone (PQ), and the oxidation of 9 α , 11 β -PGF₂ to PGD₂. It may play an important role in the pathogenesis of allergic diseases such as asthma, and may also have a role in controlling cell growth and/or differentiation.