

Store at  
-20C  
#13035**AKR1C2 Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	37	Rabbit	#P52895	1646

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

AKR1C2 Antibody recognizes endogenous levels of total AKR1C2 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val61 of human AKR1C2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Aldo-keto reductase family 1 member C2 (AKR1C2) is a member of a large superfamily of aldo-keto reductases that metabolize an array of substrates in a NADPH-dependent manner. AKR1C2 is the 3- $\alpha$ -hydroxysteroid dehydrogenase (3 $\alpha$ -HSD) responsible for metabolizing and inactivating the androgen hormone 5 $\alpha$ -dihydrotestosterone (DHT) to 3 $\alpha$ -androstenediol (1). Research studies demonstrate an increase in AKR1C2 expression in cases of advanced prostate cancer (2). Both AKR1C2 and the related reductase, AKR1C3, are implicated in enhancing PI3K/Akt signaling in prostate cancer by reducing prostaglandin D2 to the more stable 9 $\alpha$ , 11 $\beta$ -PGF2 $\alpha$  (2). In addition, research studies demonstrate an increase in AKR1C2 expression in some ovarian endometriosis specimens, suggesting the participation of AKR1C2 in the promotion of progesterone metabolism in ovarian endometriosis (3).

**Background References**

1. Rizner, T.L. et al. (2003) *Chem Biol Interact* 143-144, 401-9.
2. Wang, S. et al. (2008) *Mol Cell Endocrinol* 289, 60-6.
3. Hevir, N. et al. (2011) *Chem Biol Interact* 191, 217-26.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat

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