

AKR1B1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52760**Specification**

AKR1B1 Antibody - Product Information

Application	WB
Primary Accession	P15121
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	36 KDa

AKR1B1 Antibody - Additional Information**Gene ID** 231**Other Names**

ADR; AKR1B 1;Akr1b1;Aldehyde reductase 1;Aldehyde reductase;Aldo keto reductase family 1, member B1;Aldo-keto reductase family 1 member B1;aldo-keto reductase family 1, member B1 (aldose reductase);Aldose reductase;aldr 1;ALDR_HUMAN;ALDR1;ALR2;AR;Lii5 2 CTCL tumor antigen;Low Km aldose reductase;MGC1804.

Dilution

WB~~1:1000

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Storage

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

AKR1B1 Antibody - Protein Information**Name** AKR1B1**Synonyms** ALDR1, ALR2 {ECO:0000303|PubMed:17368668}**Function**

Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols. Displays enzymatic activity towards endogenous metabolites such as aromatic and aliphatic aldehydes, ketones, monosaccharides, bile acids and xenobiotics substrates. Key enzyme in the polyol pathway, catalyzes reduction of glucose to sorbitol during hyperglycemia (PubMed:1936586). Reduces steroids and their derivatives and prostaglandins. Displays low enzymatic activity toward all-trans-retinal, 9-cis-retinal, and 13-cis- retinal (PubMed:12732097, PubMed:12732097).

[19010934](http://www.uniprot.org/citations/19010934), PubMed: [8343525](http://www.uniprot.org/citations/8343525)). Catalyzes the reduction of diverse phospholipid aldehydes such as 1-palmitoyl-2- (5-oxovaleroyl)-sn-glycero-3-phosphoethanolamin (POVPC) and related phospholipid aldehydes that are generated from the oxydation of phosphotidylcholine and phosphatdyleethanolamides (PubMed: [17381426](http://www.uniprot.org/citations/17381426)). Plays a role in detoxifying dietary and lipid-derived unsaturated carbonyls, such as crotonaldehyde, 4-hydroxynonenal, trans-2-hexenal, trans-2,4-hexadienal and their glutathione-conjugates carbonyls (GS- carbonyls) (PubMed: [21329684](http://www.uniprot.org/citations/21329684)).

Cellular Location

Cytoplasm.

Tissue Location

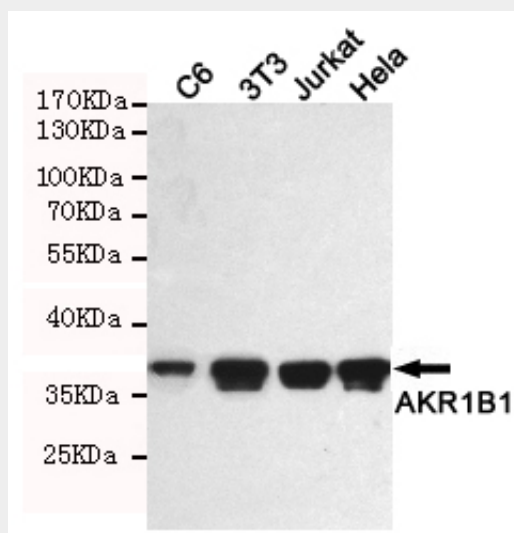
Highly expressed in embryonic epithelial cells (EUE) in response to osmotic stress.

AKR1B1 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](#)

AKR1B1 Antibody - Images



Western blot detection of AKR1B1 in C6,3T3,Jurkat and HeLa cell lysates using AKR1B1 mouse mAb (1:1000 diluted). Predicted band size:36KDa. Observed band size:36KDa.

AKR1B1 Antibody - Background

Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols with a broad range of catalytic efficiencies.

AKR1B1 Antibody - References

Bohren K.M.,et al.J. Biol. Chem. 264:9547-9551(1989).
Chung S.,et al.J. Biol. Chem. 264:14775-14777(1989).
Graham A.,et al.Nucleic Acids Res. 17:8368-8368(1989).
Grundmann U.,et al.DNA Cell Biol. 9:149-157(1990).
Nishimura C.,et al.J. Biol. Chem. 265:9788-9792(1990).