

Product Name: KD-Validated AKR1A1 Mouse Monoclonal Antibody**Catalog #: KVAb00672**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,M
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG2b
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:50-1:100
Molecular Weight	Calculated MW: 36.6kDa

Antigen Information

Gene Name	AKR1A1
Alternative Names	AKR1A1; Aldo-Keto Reductase Family 1 Member A1; ALR; Aldehyde Reductase; DD3; Dihydrodiol Dehydrogenase 3; Glucuronolactone Reductase; Glucuronate Reductase; EC 1.1.1.2; ALDR1; Aldo-Keto Reductase Family 1, Member A1 (Aldehyde Reductase); Epididymis Secretory Sperm Binding Protein Li 165mP; Epididymis Secretory Protein Li 6; Alcohol Dehydrogenase [NADP(+)]; Alcohol Dehydrogenase; EC 1.1.1.372; HEL-S-165mP; EC 1.1.1.54; EC 1.1.1.19; EC 1.1.1.20; EC 1.1.1; HEL-S-6; ARM
Gene ID	10327.0
SwissProt ID	P14550
Immunogen	Recombinant protein of human AKR1A1

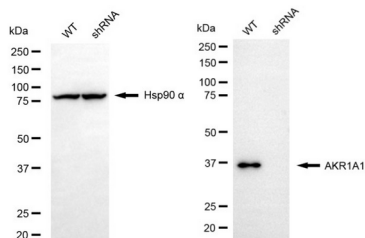
Background

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member, also known as aldehyde reductase, is involved in the reduction of biogenic and xenobiotic aldehydes and is present in virtually every tissue. Multiple alternatively spliced transcript variants of this gene exist, all encoding the same protein. [provided by RefSeq, Jan 2011]

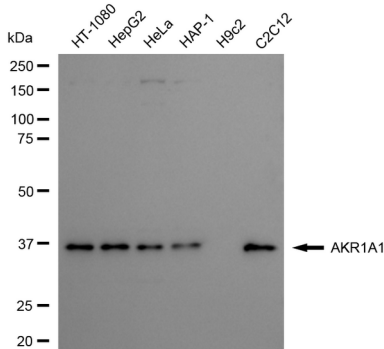
Research Area

Signal Transduction, Cell Biology, Metabolism

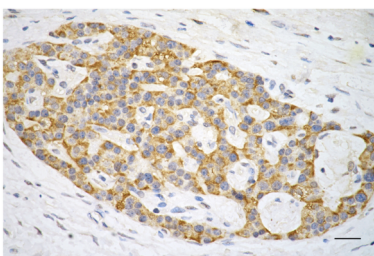
Image Data



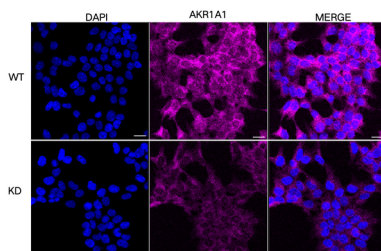
Western blotting analysis using AKR1A1 antibody (KVA00672). AKR1A1 expression in wild type (WT) and AKR1A1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with AKR1A1 antibody (KVA00672, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



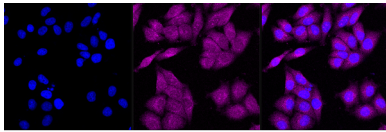
Western blotting analysis using AKR1A1 antibody (KVA00672). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with AKR1A1 antibody (KVA00672, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



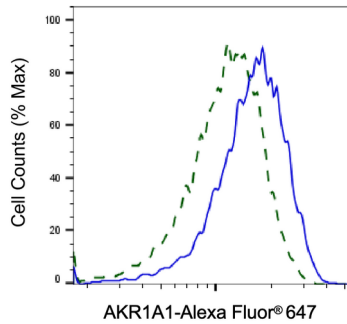
Immunohistochemistry was performed on paraffin-embedded human pancreatic adenocarcinoma using AKR1A1 antibody (KVA00672, 1:100). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



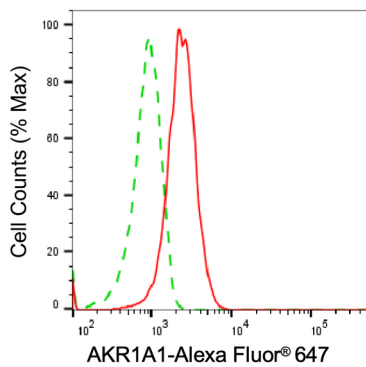
Immunocytochemical staining of HeLa cells using AKR1A1 antibody (KVA00672, 1:1,000). Top panel: wild-type (WT); Bottom panel: AKR1A1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; AKR1A1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with AKR1A1 antibody (KVA00672, 1:1,000) . Nuclei were stained blue with DAPI; AKR1A1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and Smart Gain: Medium. Scale bar, 20 µm.



Validation of AKR1A1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with AKR1A1 antibody (KVA00672, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of AKR1A1 expression in HepG2 cells using AKR1A1 antibody (KVA00672, 1:2,000). Green, isotype control; red, AKR1A1.