

Product Name: KD-Validated AKR1C1/AKR1C2 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA01422

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit 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
Molecular Weight	Predicted, 37 kDa; observed, 35 kDa

Antigen Information

Gene Name	AKR1C1/AKR1C2
Alternative Names	AKR1C1/2; Aldo-Keto Reductase Family 1 Member C1/2; DDH; DD1/2; HAKRC; MBAB; DDH1/2; Dihydrodiol Dehydrogenase 1/2; 20-Alpha (3-Alpha)-Hydroxysteroid Dehydrogenase; High-Affinity Hepatic Bile Acid-Binding Protein; Chlordecone Reductase Homolog HAKRC; Dihydrodiol Dehydrogenase 1/2; HBAB; Aldo-Keto Reductase Family 1, Member C1/2 (Dihydrodiol Dehydrogenase 1; 20-Alpha (3-Alpha)-Hydroxysteroid Dehydrogenase); Trans-1,2-Dihydrobenzene-1,2-Diol Dehydrogenase; Type II 3-Alpha-Hydroxysteroid Dehydrogenase; 20 Alpha-Hydroxysteroid Dehydrogenase; 20-Alpha-Hydroxysteroid Dehydrogenase; Hepatic Dihydrodiol Dehydrogenase; Dihydrodiol Dehydrogenase 1/2; Aldo-Keto Reductase C; Indanol Dehydrogenase; 20-ALPHA-HSD; 20-Alpha-HSD; EC 1.1.1.112; EC 1.1.1.209; EC 1.1.1.210; EC 1.1.1.357; EC 1.1.1.149; 2-ALPHA-HSD;

	EC 1.1.1.51; EC 1.1.1.53; EC 1.1.1.62; EC 1.3.1.20; EC 1.1.1.; EC 1.1.1; DD1/DD2; H-37; C9
Gene ID	1645,1646
SwissProt ID	Q04828, P52895
Immunogen	A synthetic peptide of human AKR1C1 / AKR1C2

Background

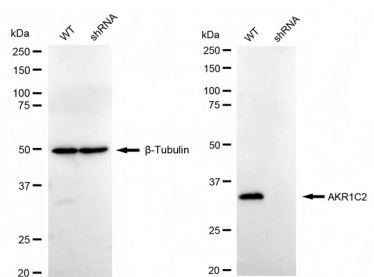
AKR1C1: This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the reaction of progesterone to the inactive form 20-alpha-hydroxy-progesterone. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. [provided by RefSeq, Jul 2008]

AKR1C2: This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols using NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme binds bile acid with high affinity, and shows minimal 3-alpha-hydroxysteroid dehydrogenase activity. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]

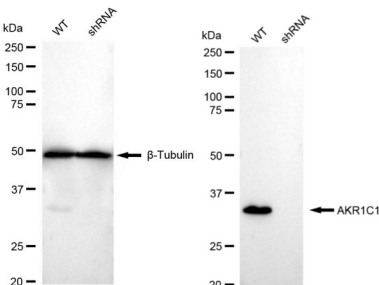
Research Area

Signal Transduction,Cancer,Developmental Biology,Metabolism

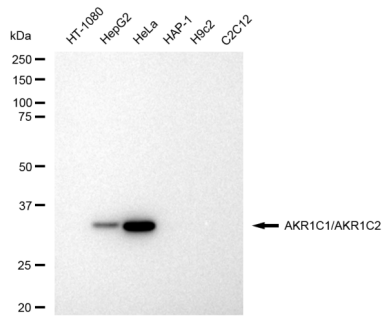
Image Data



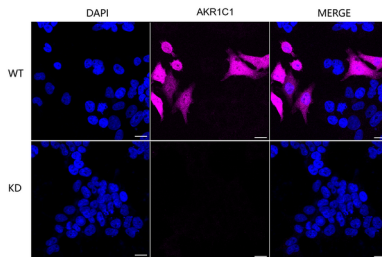
Western blotting analysis using AKR1C2 antibody (KVA01422). AKR1C2 expression in wild type (WT) and AKR1C2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with AKR1C2 antibody (KVA01422, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



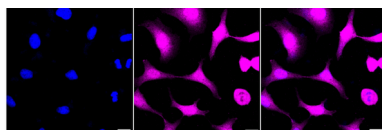
Western blotting analysis using AKR1C1/AKR1C2 antibody (KVA01422). AKR1C1/AKR1C2 expression in wild type (WT) and AKR1C1 shRNA knockdown (KD) HeLa cells with 30 µg of Total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with AKR1C1/AKR1C2 antibody (KVA01422, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



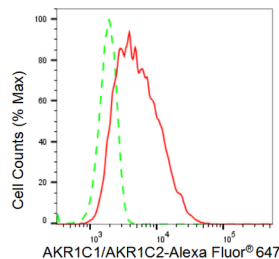
Western blotting analysis using AKR1C1/AKR1C2 antibody (KVA01422). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with AKR1C1/AKR1C2 antibody (KVA01422, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HeLa cells using AKR1C1 / AKR1C2 antibody (KVA01422, 1:1,000), Top panel: wild-type (WT); Bottom panel: AKR1C1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; AKR1C1 / AKR1C2 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HeLa cells with AKR1C1/AKR1C2 antibody (KVA01422, 1:1,000). Nuclei were stained blue with DAPI; AKR1C1/AKR1C2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: High. Scale bar: 20 µm.



Flow cytometric analysis of AKR1C1/AKR1C2 expression in HeLa cells using AKR1C1/AKR1C2 antibody (KVA01422, 1:2,000). Green, isotype control; red, AKR1C1/AKR1C2.