

Product datasheet for **CF500746**

AKR1A1 Mouse Monoclonal Antibody [Clone ID: OTI4G2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI4G2
Applications:	FC, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:50, Flow 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human AKR1A1 (NP_006057) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	36.6 kDa
Gene Name:	aldo-keto reductase family 1 member A1
Database Link:	NP_006057 Entrez Gene 58810 Mouse Entrez Gene 78959 Rat Entrez Gene 10327 Human P14550



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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. Alternative splicing of this gene results in two transcript variants encoding the same protein.

Synonyms:

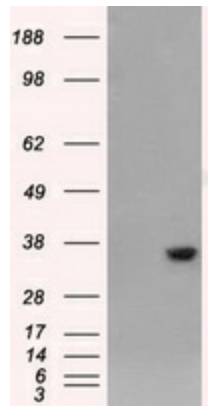
ALDR1; ALR; ARM; DD3; HEL-S-6

Protein Families:

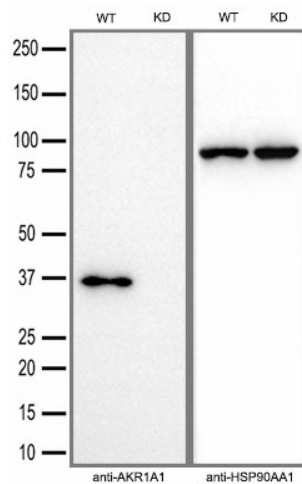
Druggable Genome

Protein Pathways:

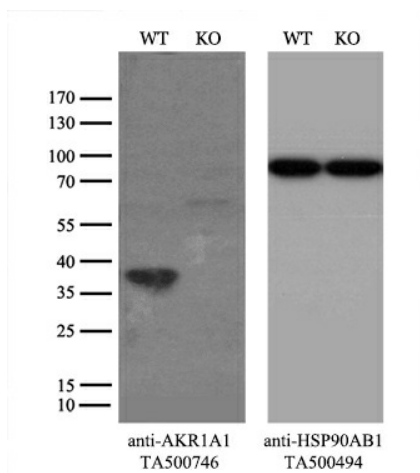
Glycerolipid metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways

Product images:


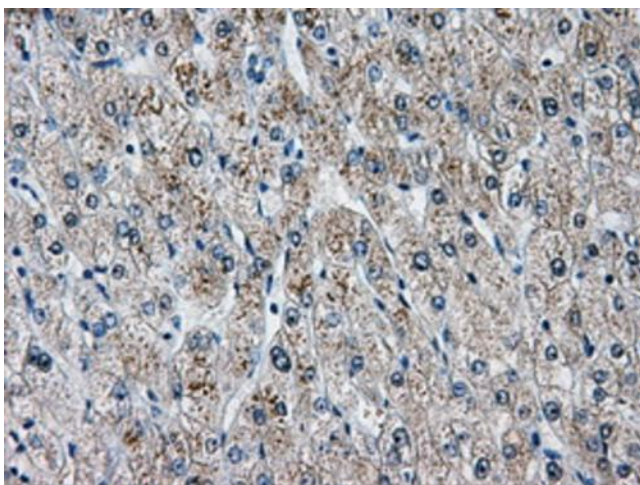
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY AKR1A1 ([RC200302], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-AKR1A1. Positive lysates [LY401826] (100ug) and [LC401826] (20ug) can be purchased separately from OriGene.



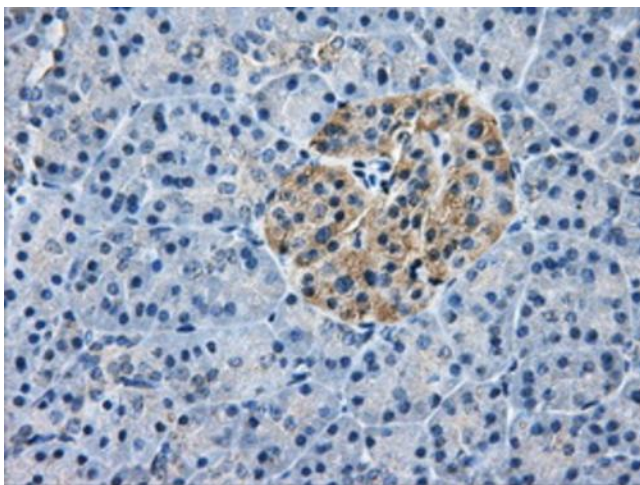
Equivalent amounts of cell lysates (30 ug per lane) of wild-type HeLa cells (WT) and AKR1A1-Knockdown HeLa cells (KD) were separated by SDS-PAGE and immunoblotted with anti-AKR1A1 monoclonal antibody [TA500746] (1:5000). Then the blotted membrane was stripped and reprobed with anti-HSP90AA1 antibody as a loading control.



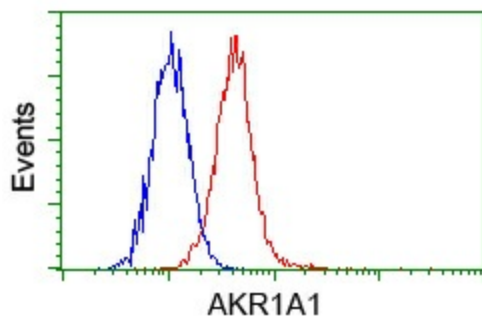
Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and AKR1A1-Knockout 293T cells (KO, Cat# [LC812404]) were separated by SDS-PAGE and immunoblotted with anti-AKR1A1 monoclonal antibody [TA500746], (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control.



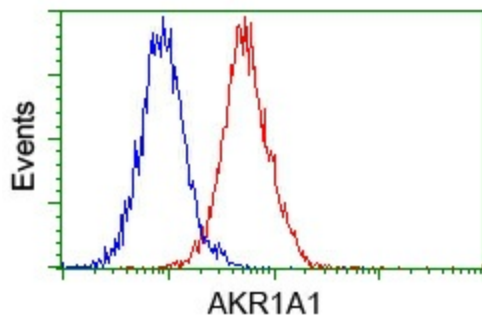
Immunohistochemical staining of paraffin-embedded liver tissue within the normal limits using anti-AKR1A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded pancreas tissue within the normal limits using anti-AKR1A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Flow cytometric analysis of HeLa cells, using anti-AKR1A1 antibody ([TA500746]), (Red) compared to a nonspecific negative control antibody (TA50011) (Blue).



Flow cytometric analysis of Jurkat cells, using anti-AKR1A1 antibody ([TA500746]), (Red) compared to a nonspecific negative control antibody (TA50011) (Blue).