AKR1A1 polyclonal antibody

Catalog # PAB2580 Size 400 uL

Applications



Western Blot (Cell lysate)

Western blot analysis of AKR1A1 polyclonal antibody (Cat # PAB2580) in Y-79 cell line lysates (35 ug/lane). AKR1A1 (arrow) was detected using the purified polyclonal antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections)

Formalin-fixed and paraffin-embedded human hepatocarcinomareacted with AKR1A1 polyclonal antibody (Cat # PAB2580), which was peroxidaseconjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Specification	
Product Description	Rabbit polyclonal antibody raised against synthetic peptide of AKR1A1.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to C-terminus of human AKR1A1.
Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Ammonium sulfate precipitation



Product Information

Recommend Usage	Western Blot (1:1000) Immunohistochemistry (1:10-50) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

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Entrez GenelD	<u>10327</u>
Protein Accession#	<u>NP_006057;Q6IAZ4</u>
Gene Name	AKR1A1
Gene Alias	ALDR1, ALR, ARM, DD3, MGC12529, MGC1380
Gene Description	aldo-keto reductase family 1, member A1 (aldehyde reductase)
Omim ID	<u>103830</u>
Gene Ontology	<u>Hyperlink</u>
Gene Summary	This gene encodes a member of the aldo/keto reductase superfamily, which consists of more tha n 40 known enzymes and proteins. This member, also known as aldehyde reductase, is involved i n the reduction of biogenic and xenobiotic aldehydes and is present in virtually every tissue. Altern ative splicing of this gene results in two transcript variants encoding the same protein. [provided b y RefSeq

Gene Info — AKR1A1



Product Information

Other Designations

OTTHUMP0000009240|OTTHUMP0000009241|alcohol dehydrogenase|aldehyde reductase|a ldo-keto reductase family 1, member A1|dihydrodiol dehydrogenase 3

Publication Reference

 Interindividual Variability in the Cardiac Expression of Anthracycline Reductases in Donors With and Without Down Syndrome.

Quinones-Lombrana A, Ferguson D, Hageman Blair R, Kalabus JL, Redzematovic A, Blanco JG. Pharmaceutical Research 2014 Jul; 31(7):1644.

Application: WB, Human, Heart

 Merging the binding sites of aldose and aldehyde reductase for detection of inhibitor selectivity-determining features.

Steuber H, Heine A, Podjarny A, Klebe G.

Journal of Molecular Biology 2008 Apr; 379(5):991.

- The structure of Apo R268A human aldose reductase: hinges and latches that control the kinetic mechanism.
 Bohren KM, Brownlee JM, Milne AC, Gabbay KH, Harrison DH.
 Biochimica et Biophysica Acta 2005 May; 1748(2):201.
- <u>Structures of human and porcine aldehyde reductase: an enzyme implicated in diabetic complications.</u>

El-Kabbani O, Green NC, Lin G, Carson M, Narayana SV, Moore KM, Flynn TG, DeLucas LJ. Acta Crystallographica. Section D, Biological Crystallography 1994 Nov; 50(Pt 6):859.

Pathway

- Caprolactam degradation
- <u>Glycerolipid metabolism</u>
- <u>Glycolysis / Gluconeogenesis</u>
- Metabolic pathways

Disease

Adenocarcinoma

😵 Abnova

- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Lung Neoplasms
- Lymphoma
- Pulmonary Disease
- Urinary Bladder Neoplasms
- Werner syndrome