Product Name: Aldose Reductase Rabbit Polyclonal Antibody
Catalog #: APRab06771

Summary

Production Name	Aldose Reductase Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,IF,ELISA
Reactivity	Human,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	AKR1B1
Alternative Names	AKR1B1; ALDR1; Aldose reductase; AR; Aldehyde reductase; Aldo-keto reductase family 1 member B1
Gene ID	231.0
SwissProt ID	P15121.The antiserum was produced against synthesized peptide derived from human AKR1B1. AA range:241-290

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.

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Molecular Weight 36kD

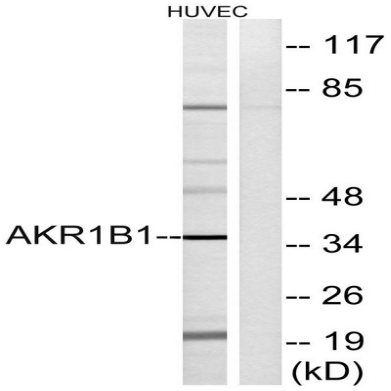
Background

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member catalyzes the reduction of a number of aldehydes, including the aldehyde form of glucose, and is thereby implicated in the development of diabetic complications by catalyzing the reduction of glucose to sorbitol. Multiple pseudogenes have been identified for this gene. The nomenclature system used by the HUGO Gene Nomenclature Committee to define human aldo-keto reductase family members is known to differ from that used by the Mouse Genome Informatics database. [provided by RefSeq, Feb 2009],catalytic activity:Alditol + NAD(P)(+) = aldose + NAD(P)H.,disease:In diabetes and galactosemia, increased AR activity leads to high levels of sorbitol and galactitol, respectively, in the cells of many tissues. Accumulation of sugar alcohols has been shown to cause osmotic cataracts in the lens. AR is also thought to play a key role in diabetic complications of three other target tissues, namely, nerve, kidney and retina.,enzyme regulation:Cys-299 may regulate the kinetic and inhibition properties of the enzyme, but does not participate in catalysis.,function:Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols with a broad range of catalytic efficiencies.,similarity:Belongs to the aldo/keto reductase family.,subunit:Monomer.,tissue specificity:Highly expressed in embryonic epithelial cells (EUE) in response to osmotic stress.,

Research Area

Pentose and glucuronate interconversions;Fructose and mannose metabolism;Galactose metabolism;Glycerolipid metabolism;Pyruvate metabolism;

Image Data



Western blot analysis of lysates from HUVEC cells, using AKR1B1 Antibody. The lane on the right is blocked with the synthesized peptide.

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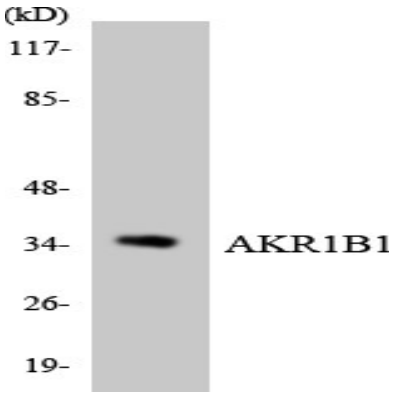
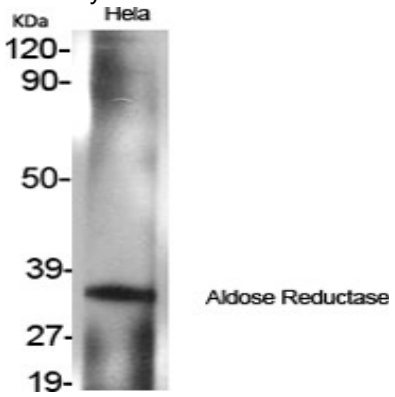
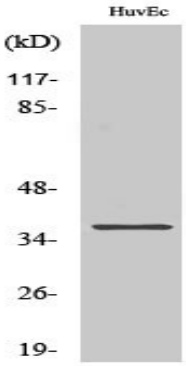


Western blot analysis of the lysates from HUVECcells using AKR1B1 antibody.



Western Blot analysis of various cells using Aldose Reductase Polyclonal Antibody



Western Blot analysis of HuvEc cells using Aldose Reductase Polyclonal Antibody

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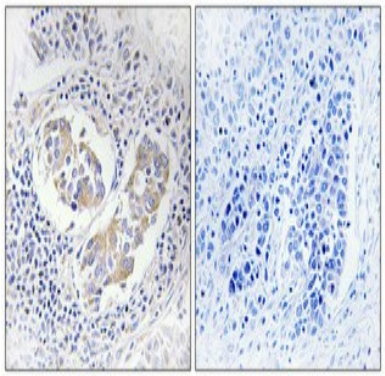
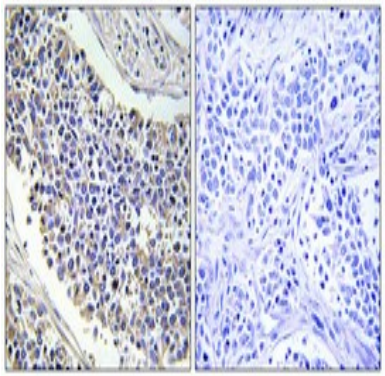


Immunohistochemical analysis of paraffin-embedded Human lung cancer. Antibody was diluted at 1:100（4°,overnight）. High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl （right） obtaned from antibody was pre-absorbed by immunogen peptide.



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Note

For research use only.