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

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
<b>Molecular Weight</b>	36kDa

**Antigen Information**

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

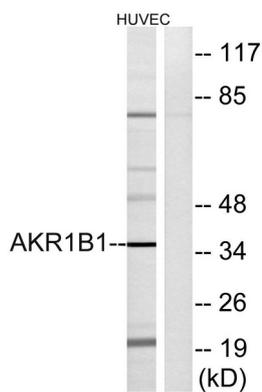
**Background**

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.,

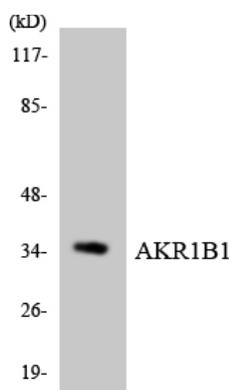
## Research Area

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

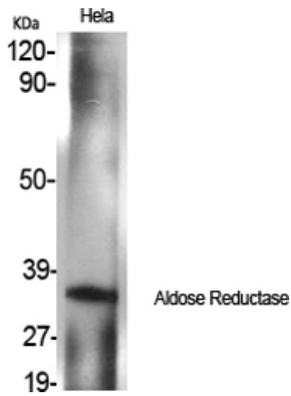
## Image Data



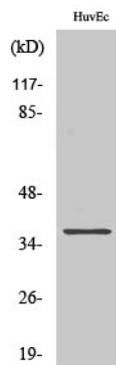
Western blot analysis of lysates from HUVEC cells, using AKR1B1 Antibody. The lane on the right is blocked with the synthesized peptide.



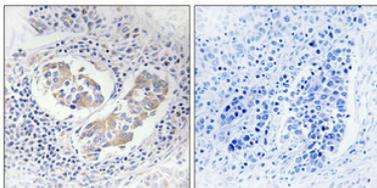
Western blot analysis of the lysates from HUVEC cells using AKR1B1 antibody.



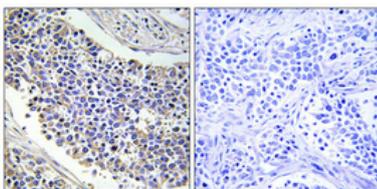
Western Blot analysis of various cells using Aldose Reductase Polyclonal Antibody



Western Blot analysis of HuvEc cells using Aldose Reductase Polyclonal Antibody



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. Negative contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



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. Negative contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.