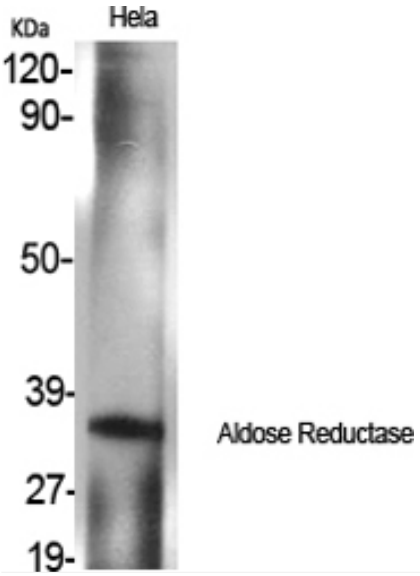
Aldose Reductase Polyclonal Antibody

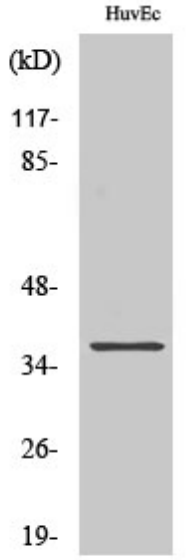
Catalog No	YP-Ab-02494
Isotype	IgG
Reactivity	Human;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	AKR1B1
Protein Name	Aldose reductase
Immunogen	The antiserum was produced against synthesized peptide derived from human AKR1B1. AA range:241-290
Specificity	Aldose Reductase Polyclonal Antibody detects endogenous levels of Aldose Reductase protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	AKR1B1; ALDR1; Aldose reductase; AR; Aldehyde reductase; Aldo-keto reductase family 1 member B1
Observed Band	36kD
Cell Pathway	Cytoplasm.
Tissue Specificity	Highly expressed in embryonic epithelial cells (EUE) in response to osmotic stress.
Function	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 osmoti

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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

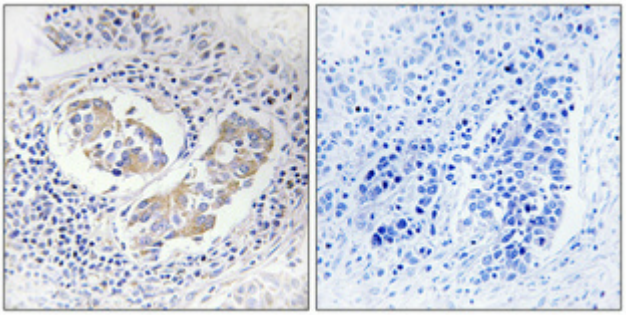
Products Images



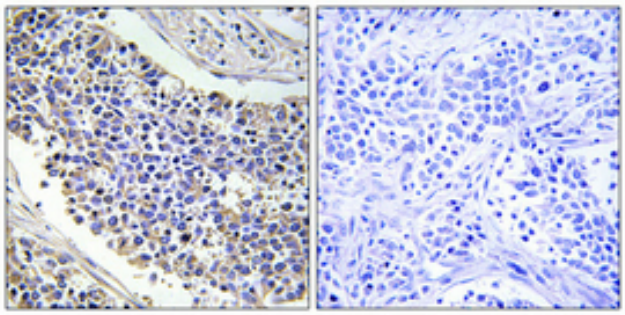
Western Blot analysis of various cells using Aldose Reductase Polyclonal Antibody



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



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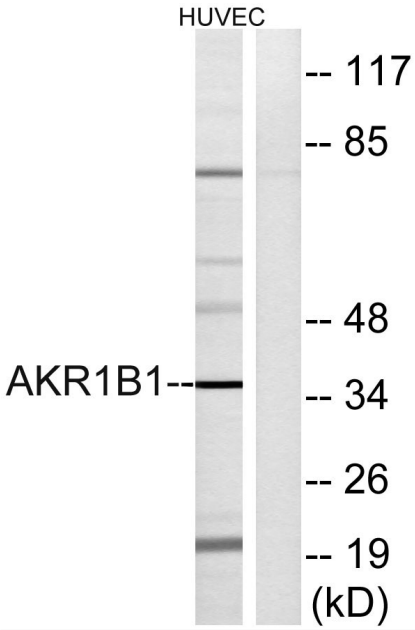

Western blot analysis of lysates from HUVEC cells, using AKR1B1 Antibody. The lane on the right is blocked with the synthesized peptide.