

Product name:	Aldose Reductase Rabbit Polyclonal Antibody
Cat number:	ABN06771
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human AKR1B1. AA range:241-290
Reactivity:	Human,Rat
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight:	36kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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.,