

**Aldose Reductase Polyclonal Antibody**  
Catalog # AP68377**Specification****Aldose Reductase Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P15121</a>
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal

**Aldose Reductase Polyclonal Antibody - Additional Information****Gene ID** 231**Other Names**

AKR1B1; ALDR1; Aldose reductase; AR; Aldehyde reductase; Aldo-keto reductase family 1 member B1

**Dilution**

WB~~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.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**Aldose Reductase Polyclonal Antibody - Protein Information****Name** AKR1B1**Synonyms** ALDR1, ALR2 {ECO:0000303|PubMed:17368668}**Function**

Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols. Displays enzymatic activity towards endogenous metabolites such as aromatic and aliphatic aldehydes, ketones, monosaccharides, bile acids and xenobiotics substrates. Key enzyme in the polyol pathway, catalyzes reduction of glucose to sorbitol during hyperglycemia (PubMed:<a href="http://www.uniprot.org/citations/1936586" target="\_blank">1936586</a>). Reduces steroids and their derivatives and prostaglandins. Displays low enzymatic activity toward all-trans-retinal, 9-cis-retinal, and 13-cis- retinal (PubMed:<a href="http://www.uniprot.org/citations/12732097" target="\_blank">12732097</a>, PubMed:<a href="http://www.uniprot.org/citations/19010934" target="\_blank">19010934</a>, PubMed:<a href="http://www.uniprot.org/citations/8343525" target="\_blank">8343525</a>). Catalyzes the reduction of diverse phospholipid aldehydes such as 1-palmitoyl-2- (5-oxovaleroyl)-sn-glycero-3-phosphoethanolamin (POVPC) and related phospholipid aldehydes that are generated

from the oxydation of phosphotidylcholine and phosphatdyleethanolamides (PubMed:<a href="http://www.uniprot.org/citations/17381426" target="\_blank">17381426</a>). Plays a role in detoxifying dietary and lipid-derived unsaturated carbonyls, such as crotonaldehyde, 4-hydroxynonenal, trans-2-hexenal, trans-2,4-hexadienal and their glutathione-conjugates carbonyls (GS- carbonyls) (PubMed:<a href="http://www.uniprot.org/citations/21329684" target="\_blank">21329684</a>).

#### Cellular Location

Cytoplasm.

#### Tissue Location

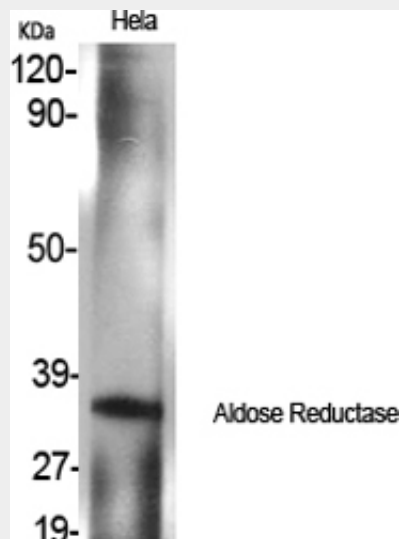
Highly expressed in embryonic epithelial cells (EUE) in response to osmotic stress.

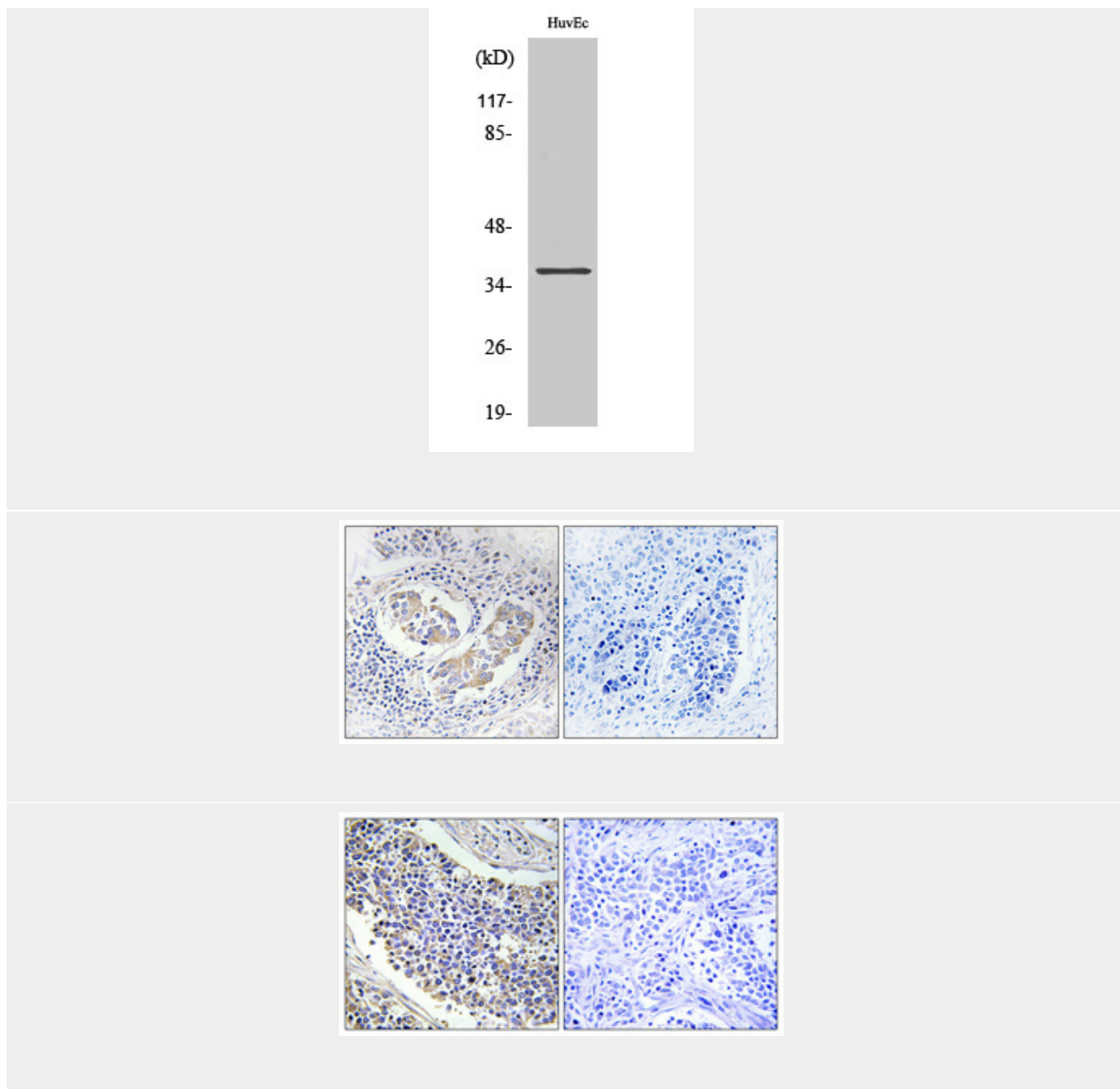
### Aldose Reductase Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Aldose Reductase Polyclonal Antibody - Images





### **Aldose Reductase Polyclonal Antibody - Background**

Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols with a broad range of catalytic efficiencies.