

## Product datasheet for **AP01380PU-S**

### **AKR1B1 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western Blot:</b> 1/500 - 1/1000. <b>Immunohistochemistry on paraffin sections</b> 1/50 - 1/200. <b>Immunofluorescence:</b> 1/50 - 1/200.
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	Aldose Reductase antibody detects endogenous levels of Aldose Reductase protein. (region surrounding Lys275)
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction > 95% (by SDS-PAGE)
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 36 kDa
Gene Name:	aldo-keto reductase family 1, member B1 (aldose reductase)
Database Link:	<a href="#">Entrez Gene 231 Human P15121</a>



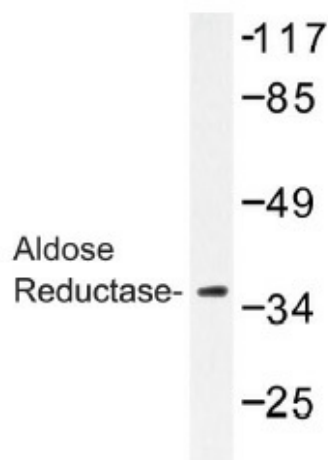
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**Background:**

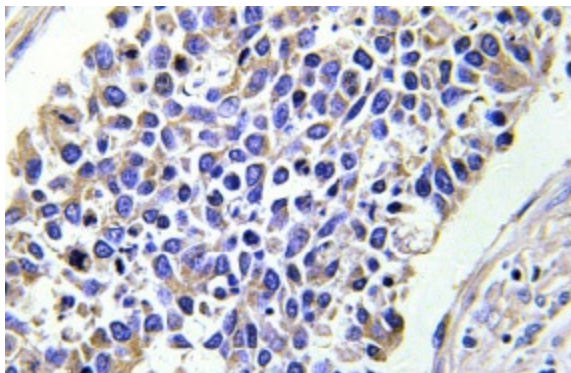
Aldose reductase (also designated AKR1B1, ALDR1, ALR2 or AR) is member of the monomeric NADPH-dependent aldo-ketoreductase family. Aldose reductase, which has a molecular mass of 36 kDa, catalyzes the reduction of various aldehydes and has been implicated in the development of diabetic complications by catalyzing the reduction of the aldehyde form of glucose, to the corresponding sugar alcohol, sorbitol. This pathway plays a minor role in glucose metabolism in most tissues, however in diabetic hyperglycemia, cells undergoing insulin-independent uptake of glucose accumulate significant quantities of sorbitol. The resulting hyperosmotic stress to cells may be a cause of diabetic complications such as neuropathy, retinopathy, and cataracts. Aldose reductase is very similar to human aldehyde reductase, bovine prostaglandin F synthase and to the European common frog protein, rho-crystallin.

**Synonyms:**

Aldose reductase

**Product images:**

Western blot (WB) analysis of Aldose Reductase antibody (Cat.-No.: [AP01380PU-N]) in extracts from HUVEC cells.



Immunohistochemistry (IHC) analyzes of Aldose Reductase antibody (Cat.-No.: [AP01380PU-N]) in paraffin-embedded human lung carcinoma tissue.