

# Recombinant Human Aldehyde reductase/AKR1B1 Protein

Catalog No.: RP02938 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	231	P15121

### Tags

N-His

### Synonyms

AKR1B1; ADR; ALDR1; ALR2; AR; aldose reductase; ADR; ALDR1; ALR2; AR

## Background

Aldose reductase (AKR1B1) belongs to the aldo/keto reductase superfamily. AKR1B1 is a NADPH-dependent aldo-keto reductase best known as the rate-limiting enzyme of the polyol pathway. Expression of AKR1B1 was the highest in lens and retina. It is the first enzyme in the polyol pathway through which glucose is converted to sorbitol which is important for the function of various organs in the body, and has been implicated in the etiology of diabetic complications. AKR1B1 is quite abundant in the collecting tubule cells and thought to provide protection against hypertonic environment. Some human tissues contain AKR1B1 as well as AKR1B10, a closely related member of the aldo-keto reductase superfamily.

## Basic Information

### Description

Recombinant Human Aldehyde reductase/AKR1B1 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Met1-Phe316) of human Aldehyde reductase/AKR1B1 (Accession #NP\_001619.1) fused with 6×His tag at the N-terminus.

### Bio-Activity

### Storage

Store the lyophilized protein at -20°C to -80°C for 12 months.  
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.  
Avoid repeated freeze/thaw cycles.

## Product Information

Source	Purification
<i>E. coli</i>	> 90 % as determined by SDS-PAGE

### Endotoxin

Please contact us for more information.

### Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, 20% glycerol, pH 7.5.

### Reconstitution

Centrifuge the vial before opening.  
Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.  
Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

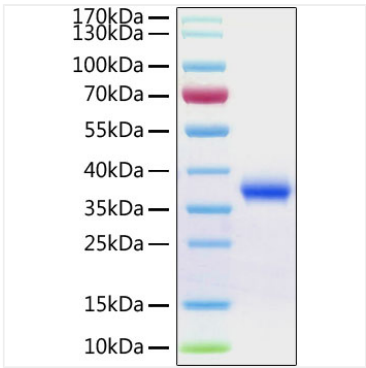
## Contact

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Validation Data



Recombinant Human Aldehyde reductase/AKR1B1 Protein was determined by SDS-PAGE with Coomassie Blue,