

Recombinant Human Aldehyde reductase/AKR1B1 Protein

Catalog No.: RP02938

Sequence Information

Species **Gene ID**
Human 231

Swiss Prot **Tags**
P15121 N-His

Synonyms

AKR1B1, ADR, ALDR1, ALR2, AR, aldose reductase, ADR, ALDR1, ALR2, AR

Product Information

Source **Purification**
E. coli ≥ 90 % as determined by SDS-PAGE.

Calculated MW **Observed MW**
37.9 kDa 36 kDa

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 free-thaw cycles.

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.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

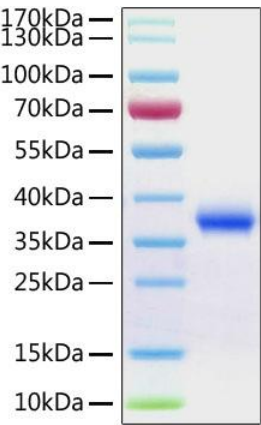
Contact

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Validation Data



Recombinant Human Aldehyde reductase/AKR1B1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.