

RP02210

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# Recombinant Human Klotho beta/KLB Protein

Catalog No.: RP02210 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	152831	Q86Z14

### Tags

C-His

### Synonyms

KLB; Beta-klotho; BKL; BetaKlotho;  
Klotho beta-like protein

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

### Endotoxin

< 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### 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

Klotho beta/KLB is a divergent structural member of the glycosidase I superfamily, is expressed primarily in the liver and pancreas, with lower expression in adipose tissue. Like Klotho, Klotho beta facilitates binding between FGF19 subfamily members and their receptors via formation of a ternary complex. The Klotho beta mediated interaction of human FGF19 (mouse FGF15) with FGF Receptor 4 in the liver negatively regulates bile acid synthesis by controlling the secretion of two key bile acid synthase genes, cholesterol 7-alpha hydroxylase (Cyp7a1) and sterol 12-alpha hydroxylase (Cyp8b1). Klotho beta is also a cofactor for the interaction of FGF21 with FGF Receptor 1c in adipocytes, which allows FGF21 to stimulate GLUT1 expression, upregulating adipocyte insulin-dependent glucose uptake. Since Klotho-related proteins lack critical active site Glu residues present in beta-glycosidases, it was initially unclear whether they were functional enzymes. However, glucuronidase activity has since been demonstrated for Klotho, indicating that physiologically relevant enzymatic activity for Klotho beta is also possible.

## Basic Information

### Description

Recombinant Human Klotho beta/KLB Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met30-Thr983) of Human Klotho beta/KLB (Accession #NP\_783864.1) fused with a his tag at the C-terminus.

### Bio-Activity

Immobilized Human Klotho at 1 μg/mL (100 μL/Well). Dose response curve for Anti-Klotho Ab.1 with the EC<sub>50</sub> of 0.4 μg/ml determined by ELISA. Immobilized Human Klotho at 2 μg/mL (100 μL/Well). Dose response curve for Anti-Klotho Ab. 2 with the EC<sub>50</sub> of 20.5 ng/mL determined by ELISA.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. 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.

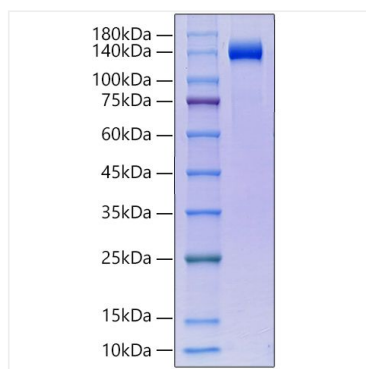
## Contact



[www.abclonal.com](http://www.abclonal.com)

## Validation Data

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Recombinant Human Klotho beta/KLB Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.