

## **Synonym**

betaKlotho,beta-klotho,BKL,KLB,klotho beta like,klotho beta-like protein

### Source

Human Klotho beta Protein, His Tag(KLB-H52H4) is expressed from human 293 cells (HEK293). It contains AA Met 30 - Leu 997 (Accession # Q86Z14-1). Predicted N-terminus: Met 30

### **Molecular Characterization**

KLB(Met 30 - Leu 997) Q86Z14-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 112.9 kDa. The protein migrates as 65 kDa,95 kDa and 130 kDa when calibrated against <u>Star Ribbon Pre-stained</u> <u>Protein Marker</u> under reducing (R) condition (SDS-PAGE).

#### Endotoxin

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

### **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

## Storage

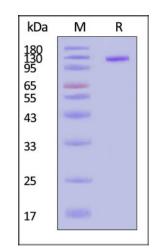
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Human Klotho beta Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

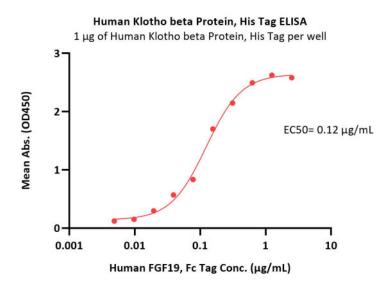
# **Bioactivity-ELISA**



# Human Klotho beta / KLB Protein, His Tag

Catalog # KLB-H52H4





Immobilized Human Klotho beta Protein, His Tag (Cat. No. KLB-H52H4) at  $10~\mu g/mL$  ( $100~\mu L/well$ ) can bind Human FGF19, Fc Tag (Cat. No. FG9-H5253) with a linear range of 0.005- $0.156~\mu g/mL$  (QC tested).

## Background

KLB (Klotho Beta) is a Protein Coding gene. Among its related pathways are RET signaling and HIV Life Cycle. GO annotations related to this gene include hydrolase activity, hydrolyzing O-glycosyl compounds and fibroblast growth factor binding. An important paralog of this gene is KL. Klotho Beta is a regulator in multiple metabolic processes, while its role in cancer remains unclear. We found the expression of βKlotho was down-regulated in human hepatocellular carcinoma tissues compared with that in paired adjacent non-tumourous liver tissues. Hepatoma cells also showed decreased expression of βKlotho compared with normal hepatocyte cells. Reintroduction of βKlotho into hepatoma cells inhibited their proliferation.

# **Clinical and Translational Updates**

