



## Synonym

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

## Source

Rhesus macaque Klotho beta, His Tag(KLB-R52H8) is expressed from human 293 cells (HEK293). It contains AA Phe 53 - Leu 997 (Accession # [G7MSR8-1](#)).

Predicted N-terminus: Phe 53

## Molecular Characterization

KLB(Phe 53 - Leu 997)  
G7MSR8-1 Poly-his

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

The protein has a calculated MW of 110.3 kDa. The protein migrates as 115-130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu\text{m}$  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

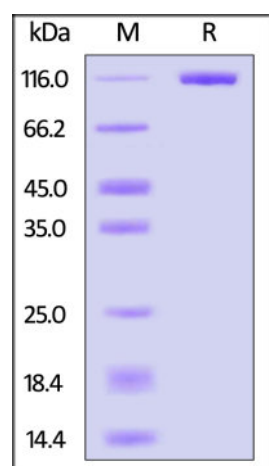
For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

## SDS-PAGE

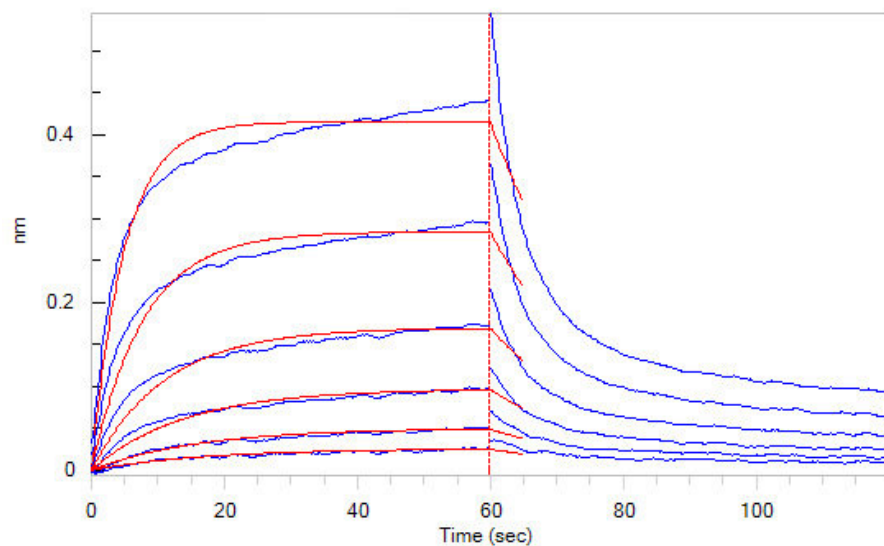


Rhesus macaque Klotho beta, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

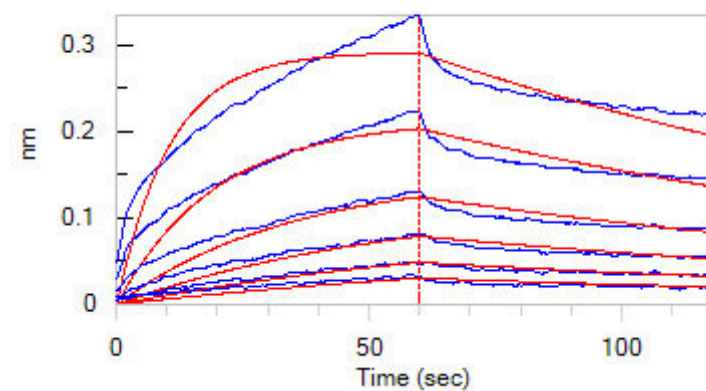
## Bioactivity-BLI

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Loaded Human FGF R4, Fc Tag (Cat. No. FG4-H5253) on Protein A Biosensor, can bind Rhesus macaque Klotho beta, His Tag (Cat. No. KLB-R52H8) with an affinity constant of 0.9  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (QC tested).



Loaded Human FGF19, Fc Tag (Cat. No. FG9-H5253) on Protein A Biosensor, can bind Rhesus macaque Klotho beta, His Tag (Cat. No. KLB-R52H8) with an affinity constant of 78.5 nM as determined in BLI assay (ForteBio Octet Red96e) (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  $\beta$ Klotho 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  $\beta$ Klotho compared with normal hepatocyte cells. Reintroduction of  $\beta$ Klotho into hepatoma cells inhibited their proliferation.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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