

Human Beta Klotho Protein, Ultra Low Endotoxin



Cat. No. KLB-HM101-UL

Description

Source	Recombinant Human Beta Klotho Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Met30-Thr983.
Accession	Q86Z14
Molecular Weight	The protein has a predicted MW of 111.6 kDa. Due to glycosylation, the protein migrates to 115-130 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.01 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Beta-klotho (KLB) is a coreceptor required for endocrine fibroblast growth factor (FGF) 15/19 and FGF21 signaling in the brain. Klb is prominent within the hypothalamus, which is consistent with its metabolic functions, but diverse roles for Klb are now emerging. Central Klb expression is low but discrete and may govern FGF-targeted sites.

Assay Data

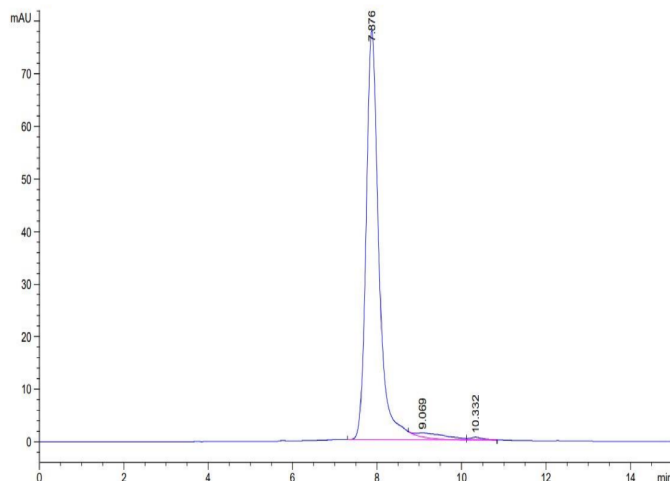
Bis-Tris PAGE



Human Beta Klotho on Bis-Tris PAGE under reduced conditions. The purity is greater than 95%.

SEC-HPLC

Assay Data

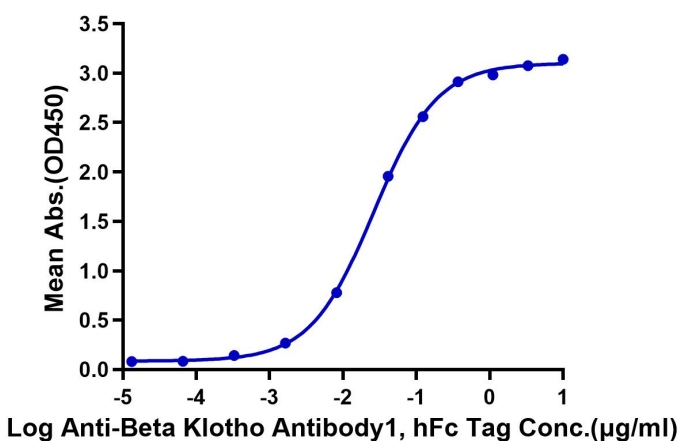


The purity of Human Beta Klotho is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human Beta Klotho, His Tag ELISA

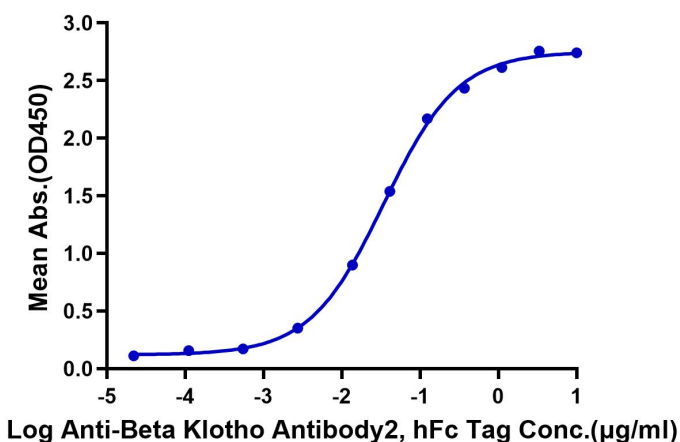
0.2µg Human Beta Klotho, His Tag Per Well



Immobilized Human Beta Klotho at 2µg/ml (100µl/Well). Dose response curve for Anti-Beta Klotho Antibody1, hFc Tag with the EC50 of 24.1ng/ml determined by ELISA (QC Test).

Human Beta Klotho, His Tag ELISA

0.2µg Human Beta Klotho, His Tag Per Well

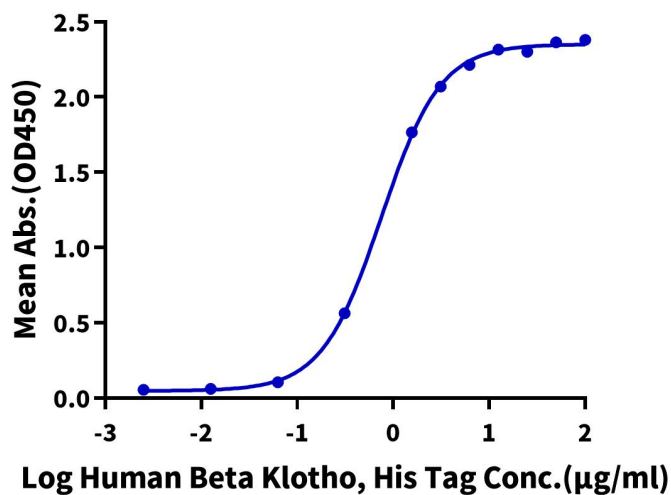


Immobilized Human Beta Klotho at 2µg/ml (100µl/Well). Dose response curve for Anti-Beta Klotho Antibody2, hFc Tag with the EC50 of 34.6ng/ml determined by ELISA (QC Test).

Assay Data

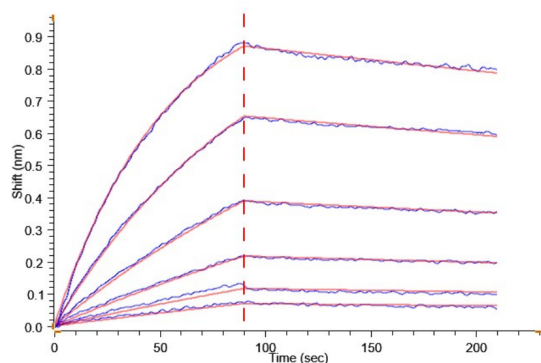
Human Beta Klotho, His Tag ELISA

0.5µg Human FGF21, mFc Tag Per Well

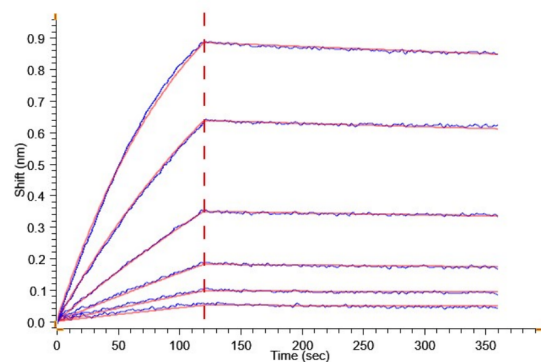


Immobilized Human FGF21, mFc Tag (Cat. FGF-HM621) at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human Beta Klotho, His Tag with the EC50 of 0.75µg/ml determined by ELISA.

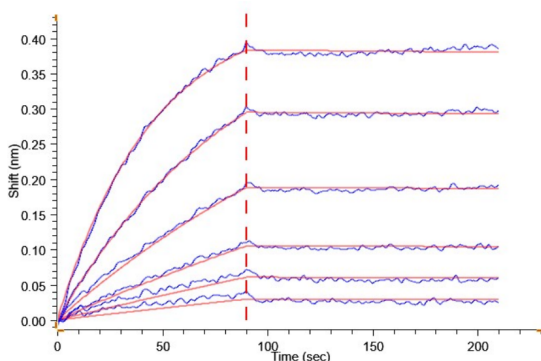
BLI Data



Loaded Anti-Beta Klotho Antibody1, hFc Tag on ProA-Biosensor can bind Human Beta Klotho, His Tag with an affinity constant of 9.40 nM as determined in BLI assay .



Loaded Anti-Beta Klotho Antibody2, hFc Tag on ProA-Biosensor can bind Human Beta Klotho, His Tag with an affinity constant of 0.40 nM as determined in BLI assay .



Loaded Human Beta Klotho, His Tag on Aint-His-Biosensor can bind Human FGF21, mFc Tag (Cat. FGF-HM621) with an affinity constant of 0.16 nM as determined in BLI assay .