

## Anti-KLOTHO Antibody

Catalog Number: A02616

### About KL

KLOTHO is the systemic anti-aging hormone within the glycosidase1 superfamily. It encodes a type I membrane protein that is abundant in the kidney and brain. In mice, a deficiency in KLOTHO expression leads to various systemic phenotypes resembling human aging such as arteriosclerosis, osteoporosis, and skin atrophy together with growth retardation, short life-span and infertility. Transgenic mice overexpressing KLOTHO have an extended life span by inhibiting insulin/IGF1 signaling. KLOTHO is involved in the regulation of calcium/phosphorus homeostasis by inhibiting the synthesis of active vitamin D and identified as a potential tumor suppressor.

### Overview

Product Name	Anti-KLOTHO Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-KLOTHO Antibody (Catalog # A02616). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	KLOTHO Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	KLOTHO antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q9UEF7

### Technical Details

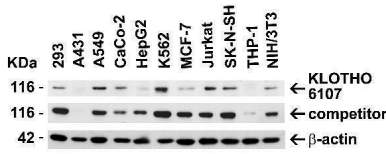
Immunogen	Anti-KLOTHO antibody was raised against a peptide corresponding to 17 amino acids near the center of human KLOTHO. The immunogen is located within amino acids 410-460 of KLOTHO.
Predicted Reactive Species	Bovine
Cross Reactivity	Three isoforms of KLOTHO are known to exist.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	KLOTHO Antibody is affinity chromatography purified via peptide column.

Suggested Dilutions

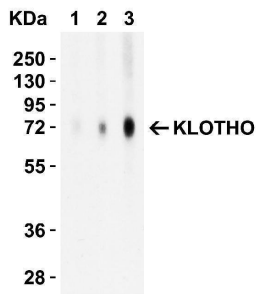
WB: 1-4 ug/mL; IHC: 2.5 ug/mL; IF: 20 ug/mL.

Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in mouse and rat samples; Immunofluorescence in mouse samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

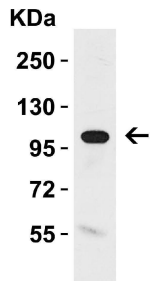
## Anti-KLOTHO Antibody (A02616) Images



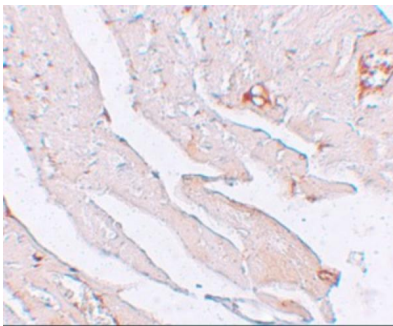
Independent Antibody Validation (IAV) via Protein Expression Profile in Human and Mouse Cell Lines Loading: 15 ug of lysates per lane. Antibodies: KLOTHO A02616 (2 ug/mL), KLOTHO, competitor antibody (4 ug/mL) and beta-actin 3779 (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



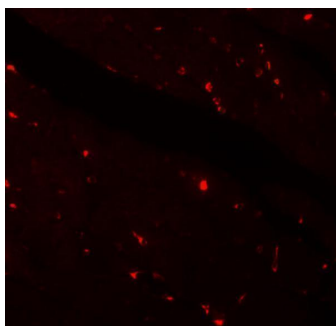
Western Blot Validation with Recombinant Protein Loading: 30 ng of human KLOTHO recombinant protein per lane. Antibodies: KLOTHO A02616 (Lane 1: 1 ug/mL, Lane 2: 2 ug/mL and Lane 3: 4 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Observed at around 72kD.



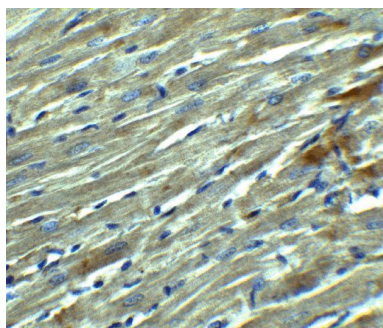
Western Blot Validation in Rat Kidney Tissue Lysate Loading: 15 ug of lysates per lane. Antibodies: KLOTHO A02616 (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry Validation of KLOTHO in Mouse Heart Tissue Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-KLOTHO antibody (A02616) at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunofluorescence Validation of KLOTHO in Mouse Heart Tissue Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse heart tissue labeling KLOTHO with A02616 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



Immunohistochemistry Validation of KLOTHO in Rat Heart Tissue  
Immunohistochemical analysis of paraffin-embedded rat heart tissue using anti-KLOTHO antibody (A02616) at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

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### Anti-KLOTHO Antibody

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