

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 Clone: SK7
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

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

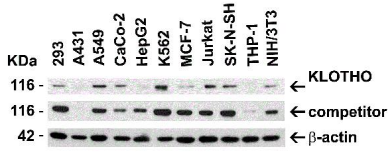
Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

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

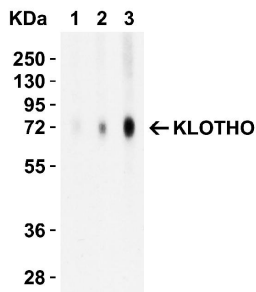
Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in mouse and rat samples; Immunofluorescence in mouse samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

Anti-KLOTHO Antibody (A02616) Images



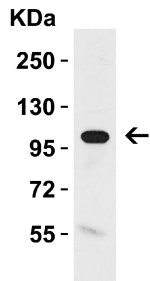
Independent Antibody Validation (IAV) via Protein Expression Profile in Human and Mouse Cell Lines

Loading: 15 ug of lysates per lane. Antibodies: KLOTHO A02616 (2 ug/mL), KLOTHO, competitor antibody (4 ug/mL) and beta-actin (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



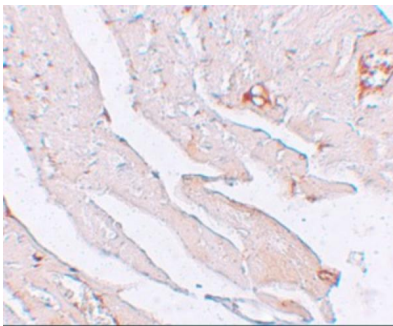
Western Blot Validation with Recombinant Protein

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.



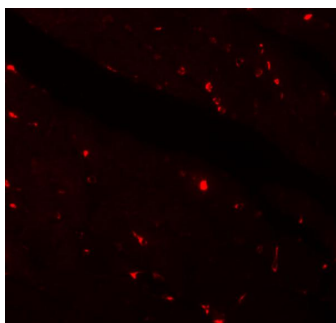
Western Blot Validation in Rat Kidney Tissue Lysate

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.



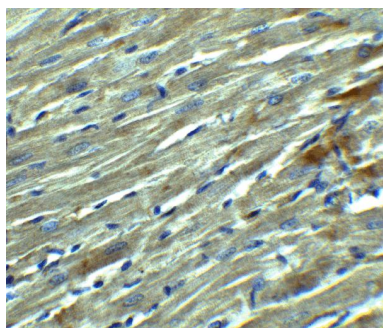
Immunohistochemistry Validation of KLOTHO in Mouse Heart Tissue

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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