

**Datasheet for 600-401-CF4****KLOTHO Antibody****Overview**

|                      |                                             |
|----------------------|---------------------------------------------|
| <b>Description:</b>  | Anti-KLOTHO (RABBIT) Antibody - 600-401-CF4 |
| <b>Item No.:</b>     | 600-401-CF4                                 |
| <b>Size:</b>         | 100 µg                                      |
| <b>Applications:</b> | ELISA, IF, IHC, WB                          |
| <b>Reactivity:</b>   | Human, Mouse, Rat                           |
| <b>Host Species:</b> | Rabbit                                      |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | 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. |
| <b>Synonyms:</b>     | KLOTHO Antibody, Klotho                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

**Target Details**

|                        |                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name:</b>      | KL                                                                                                                                                                            |
| <b>Reactivity:</b>     | Human, Mouse, Rat                                                                                                                                                             |
| <b>Immunogen Type:</b> | Conjugated Peptide                                                                                                                                                            |
| <b>Immunogen:</b>      | Anti-KLOTHO antibody was prepared from whole rabbit serum produced by repeated immunizations with a 16 amino acid synthetic peptide near the internal region of human KLOTHO. |

**Purity/Specificity:** Anti-KLOTHO Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Three isoforms of KLOTHO are known to exist.

**Relevant Links:**

- [UniProtKB - Q9UEF7](#)
- [GeneID - 9365](#)
- [NCBI - NP\\_004786](#)

## Application Details

**Tested Applications:** ELISA, IF, IHC, WB

**Application Note:** Anti-KLOTHO Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 116 kDa in Western Blots of specific cell lysates and tissues.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

**ELISA:** 1:10,000-1:20,000

**IF:** 20 µg/mL

**IHC:** 2.5 µg/mL

**WB:** 1-2 µg/mL

## Formulation

**Physical State:** Liquid (sterile filtered)

**Concentration:** 1.0 mg/mL by UV absorbance at 280 nm

**Buffer:** 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2

**Preservative:** 0.02% (w/v) Sodium Azide

**Stabilizer:** None

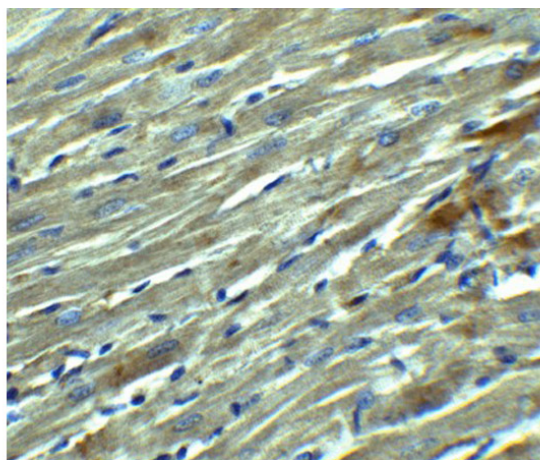
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Expiration:**

Expiration date is one (1) year from date of receipt.

**Images****Immunohistochemistry**

Immunohistochemistry Validation of KLOTHO.

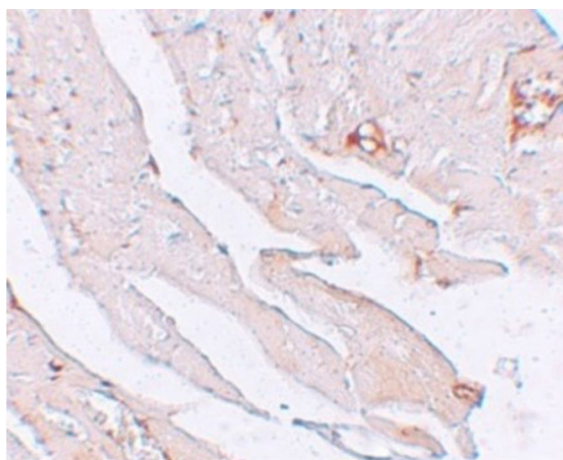
Tissue: Rat Heart Tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-KLOTHO antibody at 2.5 µg/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.

**Immunohistochemistry**

Immunohistochemistry Validation of KLOTHO.

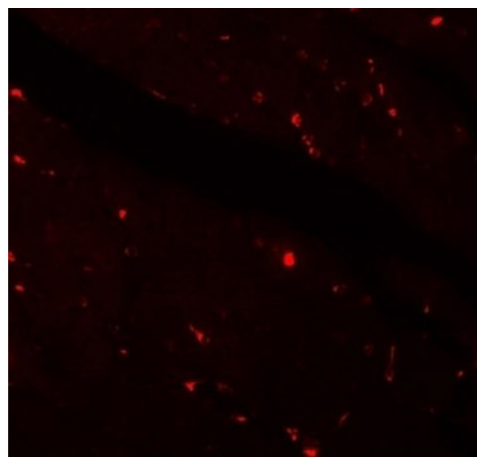
Tissue: Mouse Heart Tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-KLOTHO antibody at 2.5 µg/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



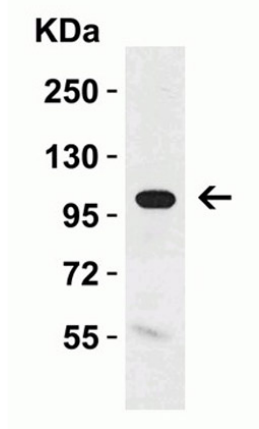
### Immunofluorescence Microscopy

Immunofluorescence Validation of KLOTHO.

Tissue: Mouse Heart Tissue.

Fixation: 4% paraformaldehyde-fixed.

Primary Antibody: KLOTHO with at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1:500 dilution (red).



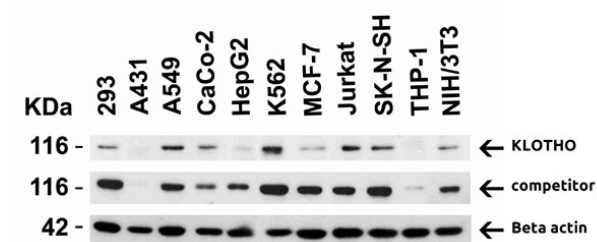
### Western Blot

Western Blot Validation.

Load: 15 µg of rat kidney lysate.

Primary Antibody: KLOTHO at 1 µg/mL for 1h incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



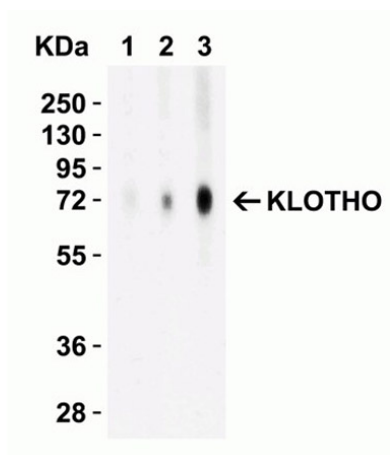
### Western Blot

Western Blot Validation.

Load: 15 µg of human or mouse lysates per lane. Lane 1: 293, Lane 2: A431, Lane 3: A549, Lane 4: CaCo-2, Lane 5: HepG2, Lane 6: K562, Lane 7: MCF7, Lane 8: Jurkat, Lane 9: SK-N-SH, Lane 10: THP-1, Lane 11: NIH/3T3.

Primary Antibody: KLOTHO at 2µg/mL, competitor antibody at 4 µg/mL, and beta-actin at 1 µg/mL for 1h incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

**Western Blot**

Western Blot Validation.

Load: 30 ng of human KLOTHO recombinant protein per lane.

Primary Antibody: KLOTHO at (Lane 1: 1 µg/mL, Lane 2: 2 µg/mL and Lane 3: 4 µg/mL), for 1h incubation at RT in 5% NFDM/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Observed at around 72kD.

**Disclaimer**

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.