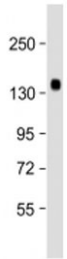
Klotho Antibody (Center Region) (F54136)

Catalog No.	Formulation	Size
F54136-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54136-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q9UEF7
Applications	WB: 1:2000
Limitations	This Klotho antibody is available for research use only.



Western blot testing of Klotho antibody at 1:2000 + human kidney lysate. Predicted molecular weight ~116 kDa, observed at 120-135 kDa.

Description

Klotho is a single-pass transmembrane protein encoded by the KL gene and an important regulator of mineral metabolism and renal physiology. The protein is expressed prominently in the kidney, where it participates in endocrine pathways controlling phosphate and vitamin D homeostasis. Klotho contains a large extracellular region composed of two homologous domains, KL1 and KL2, followed by a transmembrane segment and short intracellular region.

A major function of membrane-associated Klotho is its role as a coreceptor for fibroblast growth factor 23 (FGF23). Association of Klotho with selected FGF receptors enables high-affinity FGF23 signaling in responsive tissues. In the

kidney, this signaling pathway promotes phosphate excretion and regulates vitamin D metabolism, making the FGF23-Klotho axis an important component of systemic mineral balance.

Klotho can also undergo proteolytic processing that releases portions of its extracellular domain from the cell surface. Soluble forms of Klotho have been investigated in relation to ion transport, cellular signaling, oxidative stress and tissue homeostasis. Changes in KL expression have consequently attracted interest in research involving kidney disease, aging, cardiovascular biology and disorders of mineral metabolism.

This rabbit polyclonal antibody was generated against a synthetic peptide from within amino acids 331-365 of human Klotho. NSJ Bioreagents provides this reagent for research into KL expression, renal biology, mineral metabolism and FGF23-associated signaling.

For additional information on Klotho biology and tissue-based validation, visit our Klotho Antibody / KL Antibody page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Klotho antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 331-365 from human Klotho was used as the immunogen for the Klotho antibody.

Storage

Aliquot the Klotho antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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