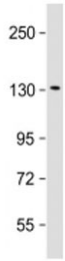
Klotho Antibody (Center Region) (F54137)

Catalog No.	Formulation	Size
F54137-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54137-0.05ML	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
Predicted Reactivity	Mouse
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 HepG2 cell lysate. Predicted molecular weight ~116 kDa, observed at 120-135 kDa.

Description

The KL gene encodes Klotho, a membrane-associated protein with important functions in endocrine regulation and mineral homeostasis. Klotho is particularly abundant in renal tissue and contains a large extracellular region with two related domains known as KL1 and KL2. Its biological activities connect kidney function with systemic regulation of phosphate and vitamin D metabolism.

Membrane-associated Klotho forms receptor complexes with fibroblast growth factor receptors and is required for efficient signaling by the endocrine hormone FGF23. This interaction alters receptor ligand-binding properties and permits FGF23-dependent signaling in Klotho-expressing cells. In renal tissue, activation of this pathway reduces phosphate reabsorption and influences enzymes controlling the production and degradation of active vitamin D.

In addition to the membrane-associated protein, extracellular portions of Klotho can be released through proteolytic cleavage. Soluble Klotho has been studied in physiological processes involving ion transport, cellular stress responses and tissue maintenance. The relationship between altered Klotho expression and age-associated changes has also generated substantial interest in renal, cardiovascular and neuroscience research.

This rabbit polyclonal antibody was generated against a synthetic peptide from within amino acids 402-436 of human Klotho. NSJ Bioreagents provides this reagent for studies of KL protein expression and the molecular pathways connecting Klotho with renal physiology, endocrine signaling and mineral homeostasis.

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 402-436 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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