

Monoclonal Antibodies:

Klotho Antibody (KL1)

For **Research Use Only**. Not for use in diagnostic procedures.

Background

Klotho, named after one of the Fates in Greek mythology, is a type-I transmembrane protein that is associated with many functions. A novel β -glucuronidase, Klotho has been associated with phosphate regulation, organ protection, and aging, among others. Though a single gene, it has three major isoforms: the transmembrane form, a shed soluble form, and a truncated soluble form. The extracellular portion of the protein consists of two glycosyl hydrolase domains referred to as KL1 and KL2. Upon cleavage at the base of the extracellular domain the protein becomes the shed soluble form, and is an active form that functions as a hormone.

Importantly, Klotho is a receptor and a co-receptor of the phosphate regulation protein FGF-23. While Klotho/FGF-23 homeostasis has primarily been focused on phosphate and vitamin D regulation, continuing research is associating Klotho and FGF-23 with functionality that impacts the heart, bones, blood vessels, and parathyroid gland.

Specificity

The specificity of the monoclonal antibody was established via epitope mapping and a series of immunoassays. The antibody binds the KL1 domain of the Klotho protein.

Specificity

Because specific techniques differ from lab to lab, the provided information should be used as a guideline only. The antibody was developed and validated by ELISA and Western Blot (WB). For additional WB information, refer to Figure 1.

Specifications

- Size/vial: 100 μ g
- Storage: 2°C to 8°C* (\leq 30 days)
- Concentration: Varies (refer to CoA)
- Buffer: Phosphate Buffered Solution (PBS), with 0.1% sodium azide.
- Isotype: IgG1 κ

Species Cross Reactivity

- No cross reactivity with non-human specimens is observed.

*For long-term storage (> 30 days), aliquot and store at \leq -20°C. Avoid repeated freeze-thaw.

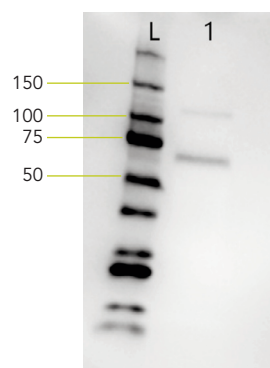


Figure 1

L: Protein ladder
1: Klotho Antibody (KL1), Cat. #21-9159, incubated with human kidney membrane tissue lysate (20 μ g).

Klotho Antibody (KL1) – Cat. #21-9159

Also available:

Klotho Antibody (KL2) – Cat. #21-9158

FGF-23 C-Term ELISA – Cat. #60-6100

FGF-23 Intact ELISA – Cat. #60-6600