abcam

Product datasheet

Anti-Klotho antibody ab18131

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Overview

Product name	Anti-Klotho antibody
Description	Rabbit polyclonal to Klotho
Tested applications	**Suitable for:** WB, ELISA
Species reactivity	**Reacts with:** Mouse **Predicted to work with:** Human
Immunogen	Synthetic peptide of 17 amino acids (Mouse) (C terminal).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Add glycerol to a final volume of 50% for extra stability and aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium Azide
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab18131** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 10 µg/ml. Predicted molecular weight: 116 kDa.
ELISA		1/10000 - 1/100000.

Target

Function	May have weak glycosidase activity towards glucuronylated steroids. However, it lacks essential active site Glu residues at positions 239 and 872, suggesting it may be inactive as a glycosidase in vivo. May be involved in the regulation of calcium and phosphorus homeostasis by inhibiting the synthesis of active vitamin D (By similarity). Essential factor for the specific interaction between FGF23 and FGFR1. The Klotho peptide generated by cleavage of the membrane-bound isoform may be an anti-aging circulating hormone which would extend life span by inhibiting insulin/IGF1 signaling.
Tissue specificity	Present in cortical renal tubules (at protein level). Soluble peptide is present in serum and cerebrospinal fluid. Expressed in kidney, placenta, small intestine and prostate. Down-regulated in renal cell carcinomas, hepatocellular carcinomas, and in chronic renal failure kidney.
Involvement in disease	Defects in KL are a cause of hyperphosphatemic familial tumoral calcinosis (HFTC) [MIM:211900]. A severe metabolic disorder that manifests with hyperphosphatemia and massive calcium deposits in the skin and subcutaneous tissues. Some patients manifest recurrent, transient, painful swellings of the long bones associated with the radiographic findings of periosteal reaction and cortical hyperostosis and absence of skin involvement.
Sequence similarities	Belongs to the glycosyl hydrolase 1 family. Klotho subfamily.
Domain	Contains 2 glycosyl hydrolase 1 regions. However, the first region lacks the essential Glu active site residue at position 239, and the second one lacks the essential Glu active site residue at position 872.
Post-translational modifications	N-glycosylated.
Cellular localization	Secreted and Cell membrane. Isoform 1 shedding leads to a soluble peptide.

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