

KL Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22273c

Specification

KL Antibody (Center) - Product Information

Application	WB, FC,E
Primary Accession	O9UEF7
Other Accession	O8WP17
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	116181

KL Antibody (Center) - Additional Information

Gene ID 9365

Other Names

Klotho, 3.2.1.31, Klotho peptide, KL

Target/Specificity

This KL antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 331-365 amino acids from the Central region of human KL.

Dilution

WB~~1:2000

FC~~1:25

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

KL Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

KL Antibody (Center) - Protein Information

Name KL

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 (By similarity).

Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Apical cell membrane {ECO:0000250|UniProtKB:O35082}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:O35082}. Note=Isoform 1 shedding leads to a soluble peptide. {ECO:0000250|UniProtKB:O35082} [Klotho peptide]: Secreted {ECO:0000250|UniProtKB:O35082}

Tissue Location

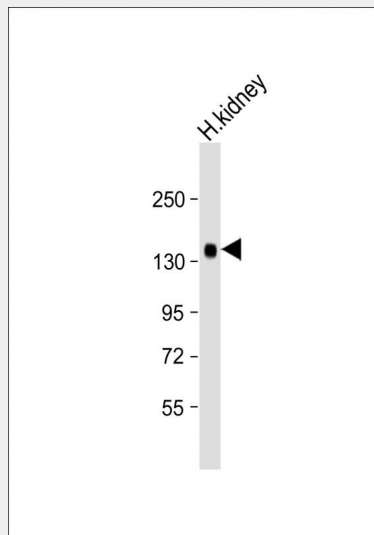
Present in cortical renal tubules (at protein level). Soluble peptide is present in serum and cerebrospinal fluid Expressed in kidney, placenta, small intestine and prostate. Down-regulated in renal cell carcinomas, hepatocellular carcinomas, and in chronic renal failure kidney.

KL Antibody (Center) - Protocols

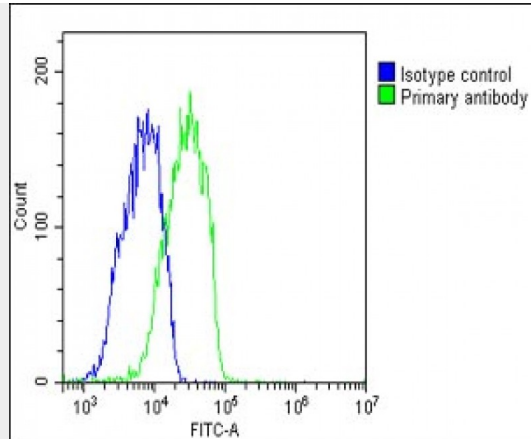
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KL Antibody (Center) - Images



Anti-KL Antibody (Center) at 1:2000 dilution + Human kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 116 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Overlay histogram showing HepG2 cells stained with AP22273c (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22273c, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed (1583138) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

KL Antibody (Center) - Background

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 (By similarity).

KL Antibody (Center) - References

- Kuro-o M., et al. Nature 390:45-51(1997).
- Matsumura Y., et al. Biochem. Biophys. Res. Commun. 242:626-630(1998).
- Dunham A., et al. Nature 428:522-528(2004).
- Kato Y., et al. Biochem. Biophys. Res. Commun. 267:597-602(2000).
- Yahata K., et al. J. Mol. Med. 78:389-394(2000).