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KL Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22274c

Product Information

Application	WB, E
Primary Accession	Q9UEF7
Other Accession	Q8WP17, O35082
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB57995
Calculated MW	116181

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 402-436 amino acids from the Central region of human KL.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
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.

Protein Information

Name	KL
Function	Exhibits beta-glucuronidase activity in vitro despite lacking canonical catalytic Glu residues of glycosyl hydrolase 1 family enzymes (By similarity). Hydrolyzes steroid beta-D-glucuronides including estradiol-3-beta-D-glucuronide, estrone-3-beta-D-glucuronide and

	estriol-3-beta-D-glucuronide (By similarity). Essential for the interaction between FGF23 and FGFR1 and for FGF23-mediated regulation of renal vitamin D and phosphate homeostasis (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.

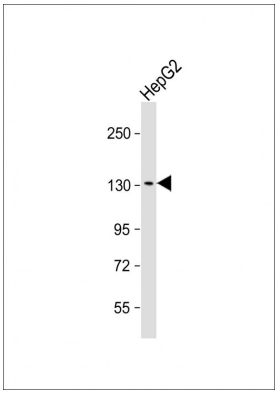
Background

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).

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).

Images



Anti-KL Antibody (Center) at 1:2000 dilution + HepG2 whole cell 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% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.