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Klotho Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2945b

Product Information

Application	WB, FC, E
Primary Accession	Q9UEF7
Reactivity	Human, Mouse, Rat
Predicted	Rabbit, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	116181
Antigen Region	986-1012

Additional Information

Gene ID	9365
Other Names	Klotho, Klotho peptide, KL
Target/Specificity	This Klotho antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 986-1012 amino acids from the C-terminal region of human Klotho.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	Klotho Antibody (C-term) 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.

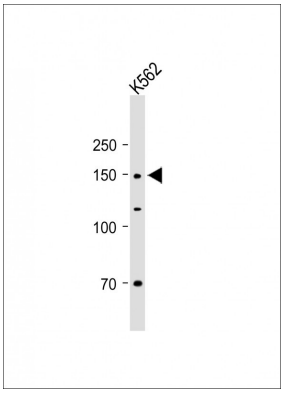
Background

Klotho is a type-I membrane protein that is related to beta-glucosidases. Reduced production of this protein has been observed in patients with chronic renal failure (CRF), and this may be one of the factors underlying the degenerative processes (e.g., arteriosclerosis, osteoporosis, and skin atrophy) seen in CRF. Also, mutations within this protein have been associated with ageing and bone loss.

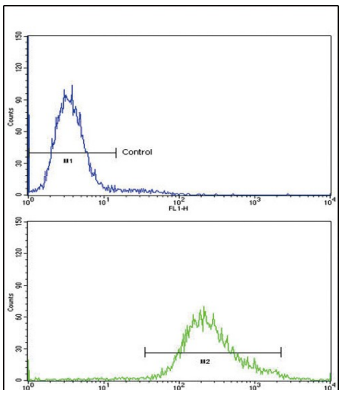
References

Sugiyama,N., et.al., Mol. Cell Proteomics 6 (6), 1103-1109 (2007)

Images



All lanes : Anti-Klotho Antibody (C-term) at 1:1000 dilution Lane 1: K562 whole cell lysate Lane 2: Mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 70kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Flow cytometric analysis of K562 cells using Klotho Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram)FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Decrease of Klotho in the kidney of streptozotocin-induced diabetic rats.

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