



KLOT Monoclonal Antibody

Catalog No	YP-mAb-07813
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	KL
Protein Name	Klotho (EC 3.2.1.31) [Cleaved into: Klotho peptide]
Immunogen	Synthesized peptide derived from part region of human protein AA range: 400-500
Specificity	KLOT Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	111kD
Cell Pathway	[Isoform 1]: Cell membrane ; Single-pass type I membrane protein . Apical cell membrane ; Single-pass type I membrane protein . Isoform 1 shedding leads to a soluble peptide. .; [Isoform 2]: Secreted .; [Klotho peptide]: Secreted .
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.
Function	catalytic activity:A beta-D-glucuronoside + H(2)O = D-glucuronate + an alcohol.,disease:Defects in KL may be a cause of chronic renal failure complications.,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.,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.,function: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.,online



Background

This gene encodes 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. [provided by RefSeq, Jul 2008],

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images

Western Blot analysis of various cells using KLOT Monoclonal Antibody

