10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KLB Rabbit pAb

Catalog # AP98399

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q86Z14
Other Accession	Q86Z14
Predicted	Rat, Human, Mouse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119808
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KLB
Epitope Specificity	451-550/1044
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the glycosyl hydrolase 1 family. Klotho subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	BetaKlotho is a 1044 amino acid single-pass type III membrane protein that plays a key role in bile acid and cholesterol metabolism by suppressing transcription of CYP7A1 (cholesterol 7-alpha-hydroxylase), the rate-limiting enzyme in bile acid synthesis. Homozygous negative betaKlotho mice showed dramatically elevated bile acid synthesis and secretion, as well as a strong upregulation of CYP7A1 and CYP8B1 and resistance to gallstone formation. FGF19 and FGF21 require direct interaction with betaKlotho for activation, intracellular signaling and gene expression modulation. Both Klotho and betaKlotho consist of two internal repeats similar to family 1 glycosidases. BetaKlotho contains two glycosyl hydrolase 1 regions, however since these regions lack essential glutamic acid residues at specific and crucial locations, the domains appear to be inactive.

Additional Information

Gene ID	152831
Other Names	BKL; KLOTB_HUMAN; KLB; BetaKlotho; Klotho beta-like protein; klotho beta; b-Klotho; beta-klotho
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	KLB
Function	Contributes to the transcriptional repression of cholesterol 7-alpha-hydroxylase (CYP7A1), the rate-limiting enzyme in bile acid synthesis. Probably inactive as a glycosidase. Increases the ability of FGFR1 and FGFR4 to bind FGF21 (By similarity).
Cellular Location	Cell membrane; Single-pass type III membrane protein

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