

Klotho Active Protein | KL active protein

Active Klotho (KL)

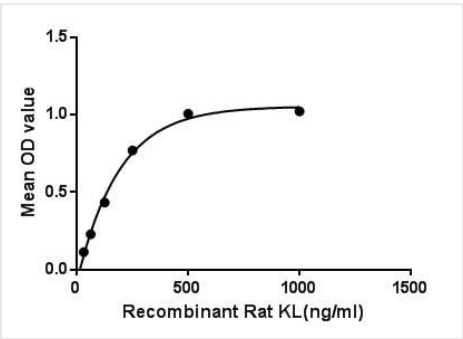
CATALOG # AAA150143	HOST E. coli	REACTIVITY Rattus norvegicus (Rat)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Klotho; Active Klotho (KL); KLa; Klotho Alpha; KL active protein

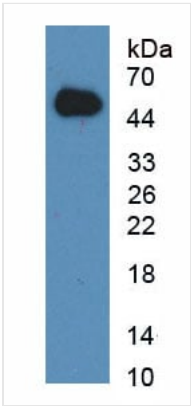
PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Rattus norvegicus (Rat)
Purity/Purification	>94%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% SKL, 5% Trehalose.
Concentration	Original Concentration: 50ug/mL (varies by lot)
Applicable Applications for KL active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Leu517~Leu956
Tags	N-terminal His-tag
Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Predicted isoelectric point	6.4
Usage	Reconstitute in ddH2O to a concentration of 0.1-0.2 mg/mL. Do not vortex.

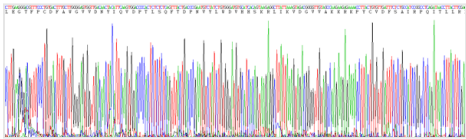


Bioactivity
Klotho (KL) is a transmembrane protein that, in addition to other effects, provides some control over the sensitivity of the organism to insulin and appears to be involved in aging. The Klotho protein is a novel -glucuronidase capable of hydrolyzing steroid -glucuronides. Genetic variants in KLOTHO have been associated with human aging, and Klotho protein has been shown to be a circulating factor detectable in serum that declines with age. The binding of certain fibroblast growth factors (FGFs) viz., FGF19, FGF20, and FGF23, to their fibroblast growth factor receptors, is promoted via their interactions as co-receptors with -Klotho. Besides, Fibroblast Growth Factor 23 (FGF23) has been identified as an interactor of KL, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat KL and recombinant rat FGF23. Briefly, KL were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100L were then transferred to FGF23-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-KL pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of KL and FGF23 was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of KL with FGF23.

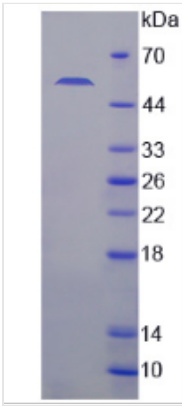
WB (Western Blot)
Figure. Western Blot



Gene Sequencing
Figure. Gene Sequencing (Extract)



SDS-PAGE
Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for KL active protein	Metabolic pathway
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NCBI AND UNIPROT INFORMATION

NCBI GI #	13786168
NCBI GeneID	83504
NCBI Accession #	NP_112626.1
NCBI GenBank Nucleotide #	NP_112626.1
UniProt Accession #	Q9Z2Y9

Molecular Weight	Predicted Molecular Mass: 12.2kDa Accurate Molecular Mass: 12kDa as determined by SDS-PAGE reducing conditions
NCBI Official Full Name	klotho
NCBI Official Synonym Full Names	Klotho
NCBI Official Symbol	KI
NCBI Protein Information	klotho
UniProt Protein Name	Klotho
UniProt Gene Name	KI
UniProt Entry Name	KLOT_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-kl-rat-rattus-rattus-norvegicus-active-protein/klotho/150143>