

Rat Klotho protein, His tag

Cat. No. GTX00378-pro

Applications Functional Assay**Species** Rat**Package**

10 µg

Applications

Application Note

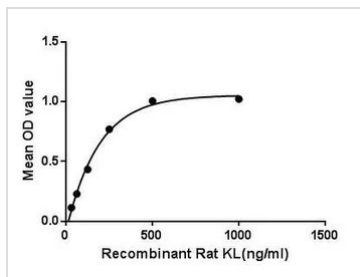
Klotho (KL) is a transmembrane protein that, in addition to other effects, provides some control over the sensitivity of the organism to insulin and appears to be involved in aging. The Klotho protein is a novel β -glucuronidase capable of hydrolyzing steroid β -glucuronides. Genetic variants in KLOTHO 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 (FGF's) viz., FGF19, FGF20, and FGF23, to their fibroblast growth factor receptors, is promoted via their interactions as co-receptors with β -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 100 µl were then transferred to FGF23-coated microtiter wells and incubated for 2h at 37°C. 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°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of KL and FGF23 was in a dose dependent manner.

Observed MW (kDa) 55 kDa.

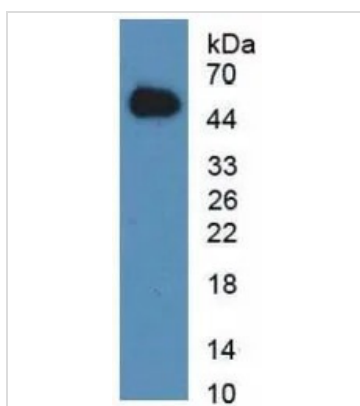
Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Leu517~Leu956 (NP_112626.1)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

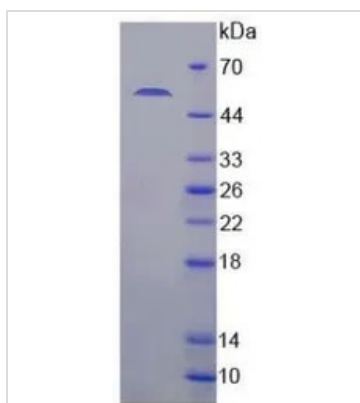
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DATA IMAGES

GTx00378-pro Functional Assay Image

Functional ELISA analysis of GTx00378-pro Rat Klotho protein which can bind immobilized FGF23 protein.


GTx00378-pro Image

WB analysis of GTx00378-pro Rat Klotho protein.


GTx00378-pro Image

SDS-PAGE analysis of GTx00378-pro Rat Klotho protein.



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