

AP32851BT-N**Polyclonal Antibody to Klotho - Biotin****Alternate names:**

EC 3.2.1.31, KL, Klotho

Quantity:

50 µg

Background:

Klotho is a glycosylated protein that plays an important role in the regulation of phosphate and calcium homeostasis. Human Klotho exists in both membrane bound and secreted forms, and is predominantly expressed in the kidney convoluted tubules, and to a lesser extent, in the brain, reproductive organs, endocrine glands, urinary bladder, skeletal muscle, placenta, and colon. The full length transmembrane form has a large extracellular domain composed of two homologous subunits termed KL1 and KL2, which contain 516 and 439 amino acid residues, respectively. The predominant circulating form, which is derived from alternative RNA splicing, contains the KL1 subunit and constitutes the N-terminal sequence of transmembrane Klotho. A third Klotho protein of about 128 kDa has been identified in the blood and cerebrospinal fluid. This circulating protein arises from the action of an as yet unidentified protease which cleaves transmembrane Klotho just above and/or within the plasma membrane. Klotho has been shown to play a key role in the signaling cascade of fibroblast growth factor-23 (FGF-23), a bone derived hormone that acts in the kidney to inhibit phosphate reabsorption and vitamin D biosynthesis. Klotho promotes FGF-23 signaling through binding to FGFR1 (IIIc) which converts this canonical FGF receptor into a specific receptor for FGF-23. In the absence of Klotho the function of FGF-23 is literally abolished.

Uniprot ID:[Q9UEF7](#)**NCBI:**[9606](#)**Host:**

Rabbit

Immunogen:

Highly pure (>98%) CHO cells derived recombinant Human Klotho (Cat.-No AR08005PU)

Format:**State:** Lyophilized (0.2µ Sterile filtered) purified protein**Purification:** Affinity Chromatography**Buffer System:** PBS, pH 7.2**Label:** Biotin**Reconstitution:** Restore in sterile water to a concentration of 0.1-1.0 mg/ml.**Applications:**

Direct ELISA: To detect Human Klotho by Direct ELISA (using 100µl/well antibody solution) a concentration of 0.25-1.0 µg/ml of this antibody is required. This biotinylated polyclonal antibody, in conjunction with compatible secondary reagents, allows the detection of at least 0.2-0.4 ng/well of recombinant Human Klotho.

Sandwich ELISA: To detect Human Klotho by Sandwich ELISA (using 100µl/well antibody solution) a concentration of 0.25-1.0 µg/ml of this antibody is required. This biotinylated polyclonal antibody, in conjunction with purified anti-Klotho (Cat.-No AP32851BT-S or AP32851BT-N) as a Capture antibody, allows the detection of at least 0.2-0.4 ng/well of recombinant Human Klotho.

Western Blot: To detect Human Klotho by Western Blot analysis this antibody can be used at a concentration of 0.1-0.2 µg/ml. Used in conjunction with compatible

secondary reagents the detection limit for recombinant Human Klotho is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

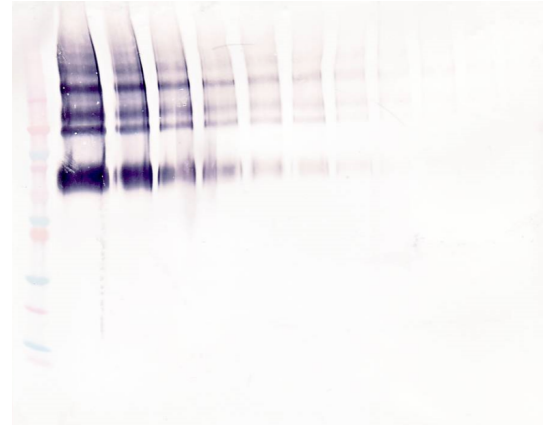
This antibody recognizes Human Klotho. Other species not tested.

Storage:

Prior to reconstitution store at 2-8°C.
Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Pictures:

Western Blot (Unreduced) using Biotin conjugated Klotho antibody
Cat.-No AP32851BT



Western Blot (Reduced) using Biotin conjugated Klotho antibody
Cat.-No AP32851BT

