

## Recombinant Human Klotho, Extracellular Domain, Fc Chimera

Cat. No. KL-2155H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant the signal peptide and the extracellular domain of human Klotho (aa 1-981) produced in HEK 293 cells are fused at the C-terminus to the Fc portion of human IgG.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Length</b>   | 1-981 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | <p>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.</p> |
| <b>Purity</b>           | ≥90% (SDS-PAGE).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Formulation</b>      | Liquid.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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0.2µm-filtered solution in PBS.

**Concentration** ~0.15mg/ml.

**Endotoxin Content** <1EU/g protein (LAL-test).

**Stability** Working aliquots are stable for up to 3 months when stored at -20°C.

## GENE INFORMATION

**Gene Name** [KL klotho \[ Homo sapiens \]](#)

**Synonyms** KL; klotho; EC 3.2.1.31; Klotho peptide; OTTHUMP00000018796

**Gene ID** [9365](#)

**mRNA Refseq** [NM\\_004795](#)

**Protein Refseq** [NP\\_004786](#)

**MIM** [604824](#)

**UniProt ID** [Q9UEF7](#)

**Chromosome Location** 13q12

**Pathway** Signaling by FGFR

**Function** beta-glucosidase activity; beta-glucuronidase activity; cation binding; fibroblast growth factor binding; hormone activity; protein binding; signal transducer activity; vitamin D

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