

Product datasheet

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ARG70604 Human Klotho recombinant protein (Active) Package: 20 μg Store at: -20°C

Summary

Product Description CHO expressed, Human Klotho recombinant protein (Active)

Tested Reactivity Hu

Predict Reactivity Ms, Rat

Tested Application SDS-PAGE

Target Name Klotho
Species Human

Expression System CHO

Activity Active

Activity Note Determined by the dose-dependent stimulation of the proliferation of murine NIH-3T3 cells.

Recombinant Human Klotho is effective in a concentration range of 0.5-2.0 ug/ml.

Alternate Names Klotho; EC 3.2.1.31

Properties

Form Powder

Purification Note Endotoxin level is 98% (by SDS-PAGE)

Storage instruction For long term, lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and

store at -20°C or -80°C for up to one month. Storage in frost free freezers is not recommended. Avoid

repeated freeze/thaw cycles. Suggest spin the vial prior to opening.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol KL

Gene Full Name klotho

Background This gene encodes a type-I membrane protein that is related to beta-glucosidases. Reduced production

of this protein has been observed in patients with chronic renal failure (CRF), and this may be one of the factors underlying the degenerative processes (e.g., arteriosclerosis, osteoporosis, and skin atrophy) seen in CRF. Also, mutations within this protein have been associated with ageing and bone

loss. [provided by RefSeq, Jul 2008]

Function May have weak glycosidase activity towards glucuronylated steroids. However, it lacks essential active

site Glu residues at positions 239 and 872, suggesting it may be inactive as a glycosidase in vivo. May be involved in the regulation of calcium and phosphorus homeostasis by inhibiting the synthesis of active vitamin D (By similarity). Essential factor for the specific interaction between FGF23 and FGFR1 (By

similarity).

The Klotho peptide generated by cleavage of the membrane-bound isoform may be an anti-aging circulating hormone which would extend life span by inhibiting insulin/IGF1 signaling. [UniProt]