Recombinant Human Kallikrein-1/KLK1 Protein

Catalog No.: RP00078

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Sequence Information

Species
Human

Gene ID
3816

Swiss Prot
P06870

Tags
C-His

Synonyms
KLK1,KLKR,Klk6,hK1

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
29.73 kDa

Observed MW
38-50 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

This protein is the class A macrophage scavenger receptors, which include three different types (1, 2, 3) generated by alternative splicing of this gene. These receptors or isoforms are macrophage-specific trimeric integral membrane glycoproteins and have been implicated in many macrophage-associated physiological and pathological processes including atherosclerosis, Alzheimer's disease, and host defense. The isoforms type 1 and type 2 are functional receptors and are able to mediate the endocytosis of modified low density lipoproteins (LDLs). The isoform type 3 does not internalize modified LDL (acetyl-LDL) despite having the domain shown to mediate this function in the types 1 and 2 isoforms. It has an altered intracellular processing and is trapped within the endoplasmic reticulum, making it unable to perform endocytosis. The isoform type 3 can inhibit the function of isoforms type 1 and type 2 when co-expressed, indicating a dominant negative effect and suggesting a mechanism for regulation of scavenger receptor activity in macrophages.

Basic Information

Description
Recombinant Human Kallikrein-1/KLK1 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Met 1-Ser 262) of human Kallikrein 1 (Accession #NP_002248) fused with a 6×His tag at the C-terminus.

Activity
Measured by its ability to cleave a flourogenic peptide substrate Pro-Phe-Arg-7-amido-4-methylcoumarin (PFR-AMC). The specific activity is >9209 pmol/min/μg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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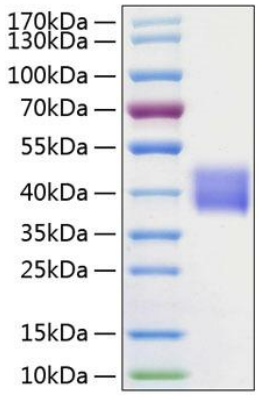
Validation Data



Recombinant Human Kallikrein-1/KLK1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.

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