

RP00078

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Recombinant Human Kallikrein-1/KLK1 Protein

Catalog No.: RP00078

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	3816	P06870

Tags

C-His

Synonyms

KLK1;KLKR;Klk6;hK1

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact



www.abclonal.com

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.

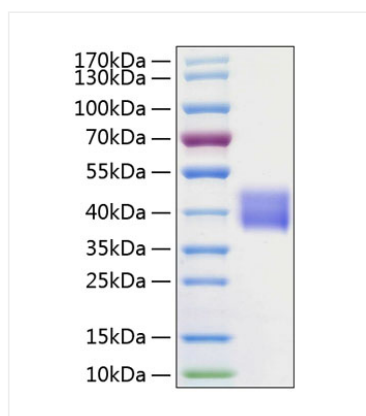
Bio-Activity

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

Storage

Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Kallikrein-1/KLK1
Protein was determined by SDS-PAGE with
Coomassie Blue, showing a band at 38-50
kDa.