

Native Human KLKB1

Cat. No. KLKB1-27924TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview Full length native Plasma Kallikrein 1B protein purified from Human plasma.

Species Human

Description

Plasma prekallikrein is a glycoprotein that participates in the surface-dependent activation of blood coagulation, fibrinolysis, kinin generation and inflammation. It is synthesized in the liver and secreted into the blood as a single polypeptide chain. Plasma prekallikrein is converted to plasma kallikrein by factor XIIa by the cleavage of an internal Arg-Ile bond. Plasma kallikrein therefore is composed of a heavy chain and a light chain held together by a disulphide bond. The heavy chain originates from the amino-terminal end of the zymogen and contains 4 tandem repeats of 90 or 91 amino acids. Each repeat harbors a novel structure called the apple domain. The heavy chain is required for the surface-dependent pro-coagulant activity of plasma kallikrein. The light chain contains the active site or catalytic domain of the enzyme and is homologous to the trypsin family of serine proteases. Plasma prekallikrein deficiency causes a prolonged activated partial thromboplastin time in patients.

Biological activity Specific activity: ≥ 15 units per mg. One unit is defined as the amount of enzyme that will hydrolyze 1 μ mole of D-Pro-Phe-Arg-pNA (Chromogenix S-2303) per minute at 25°C, pH 7.8.

Form Lyophilised: Reconstitute with 104ul distilled water. 0.3mg/ml (prior to lyophilization).

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Purity	>95% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 20mM Tris HCl, 100mM Sodium chloride, pH 7.8
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the peptidase S1 family. Plasma kallikrein subfamily. Contains 4 apple domains. Contains 1 peptidase S1 domain.
Full Length	Full L.

GENE INFORMATION

Gene Name	KLKB1 kallikrein B, plasma (Fletcher factor) 1 [Homo sapiens]
Official Symbol	KLKB1
Synonyms	KLKB1; kallikrein B, plasma (Fletcher factor) 1; KLK3; plasma kallikrein;
Gene ID	3818
mRNA Refseq	NM_000892
Protein Refseq	NP_000883
MIM	229000
Uniprot ID	P03952
Chromosome Location	4q35

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Pathway	Blood Clotting Cascade, organism-specific biosystem; Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; Formation of Fibrin Clot (Clotting Cascade), organism-specific biosystem;
Function	peptidase activity; protein binding; serine-type endopeptidase activity;

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