

## Overview

<b>Synonyms</b>	KLK1
<b>Description</b>	<b>Kallikrein 1 (KLK1)</b> , also known as tissue kallikrein, is a member of the human tissue kallikrein family. Kallikreins are a subgroup of serine proteases having diverse physiological functions. Growing evidence suggests that many kallikreins are implicated in carcinogenesis, and some have the potential to be used as cancer and other disease biomarkers. Human KLK1 precursor contains a signal peptide (residues 1 to 18), a short pro peptide (residues 19 to 24) and a mature chain (residues 25 to 262). Recombinant Human <b>Kallikrein 1</b> produced in <i>CHO</i> cells is a polypeptide chain containing 292 amino acids. A fully biologically active molecule, rhKLK1 has a molecular mass of 46 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
<b>Accession No Source</b>	P06870 <i>CHO</i>
<b>Biological Activity</b>	The Specific Activity is > 1500 pmol/min/μg, Measured by hKLK1's ability to cleave the fluorogenic peptide substrate Pro-Phe-Arg-AMC (Bachem, I-1295) <b>Activation Buffer:</b> 50 mM Tris, 10 mM CaCl <sub>2</sub> , 150 mM NaCl, pH 7.5 <b>Assay Buffer:</b> 50m M CHES, 250m M NaCl, pH 10.0 <b>Activate hKLK1:</b> Dilute hKLK1 to 200 ug/ml in Activation Buffer; Dilute Thermolysin to 2μg/mL in Activation Buffer; Combine equal volumes of 200 ug/ml hKLK1 and 2 ug/ml Thermolysin; Incubate at 37 °C for 1 hour.
<b>Sequence</b>	VTEHVLANN D VSCDHPSNTV PSGSNQDLGA GAGEDARSDD SSSRIVGGWE CEQHSQPWQA ALYHFSTFQC GGILVHRQWV LTAAHCISDN YQLWLGRHNL FDDENTAQFV HVSESFPHPG FNMSLLENHT RQADEDYSHD LMLLRLTEPA DTITDAVKV ELPTEEPEVG STCLASGWS IEPENFSFPD DLQCVDLKIL PNDECKKAHV QKVTFMMLCV GHLEGGKDTC VGDSGGPLMC DGVLQGVTSW GYVPCGTPNK PSVAVRVLSY VKWIEDTIAE NSHHHHHHHH HH

## Properties

<b>Measured Molecular Weight</b>	46 kDa, observed by reducing SDS-PAGE.
<b>Purity</b>	> 95% as analyzed by SDS-PAGE.
<b>Formulation</b>	Liquid after a 0.2 μm filtered solution in 25 mM Tris-HCl, 75 mM NaCl, pH8.0.
<b>Endotoxin Level</b>	< 0.2 EU/μg, determined by LAL method.
<b>Storage</b>	Recombinant <b>Human Kallikrein 1</b> remains stable up to 6 months at lower than -70°C from date of receipt under sterile conditions. Up to 3 months at lower than -70°C under sterile conditions after opening. Avoid repeated freeze-thaw cycles.
<b>Note</b>	For research use only

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