

# Recombinant Human Kallikrein 11 (KLK11)

Catalog Number PHC9313 (1 mg)

Pub. No. MAN0004593 Rev. A.0








## Product specifications

<b>Lot number</b>	See product label.
<b>Background</b>	Human Kallikrein 11 (KLK11), also known as Protease, Serine 20 (PRSS20) and Trypsin-Like Serine Protease (TLSP) is a 250 amino acid serine protease consisting of an 18 amino acid signal peptide and a 3 amino acid propeptide. Activation with thermolysin removes the propeptide region resulting in the active form of the protease. KLK11 is expressed in many tissues including prostate, trachea, salivary gland, lung, stomach, and skin.
<b>Molecular weight</b>	25.6 kDa (predicted), ~41 kDa (observed, due to glycosylation).
<b>Purity</b>	≥95% as determined by SDS PAGE analysis.
<b>Amino acid sequence</b>	ETRIIKGFEC KPHSQPWQAA LFEKTRLLCG ATLIAPRWLL TAAHCLKPRY IVHLGQHNLQ KEEGCEQTRT ATESFPHPGF NNSLPNKDHR NDIMLVKMAS PVSITWAVRP LTLSSRCVTA GTSCLISGWG STSSPQLRLP HTLRCANITI IEHQKCNAY PGNITDTMVC ASVQEGGKDS CQGDSSGGPLV CNQSLQGIIS WQDPCAITR KPGVYTKVCK YVDWIQETMK NN
<b>Biological activity</b>	Specific activity is >2200 pmoles/min/μg when measure with 100 μM colorimetric peptide substrate (D-Val-Leu-Lys-ThioBenzyl ester) and 1 μg of activated enzyme. The reaction is carried out in a volume of 100 μL containing 50 mM Tris, 1M NaCl, 10 mM EDTA, 0.1 mM DTNB (5,5'-Dithio-bis(2-nitrobenzoic acid)), pH 8.5 at 37°C. Cleavage of the peptide substrate is measured at a wavelength of 405 nm and quantified using an extinction coefficient of 13,260 M <sup>-1</sup> cm <sup>-1</sup> .
<b>Formulation</b>	Lyophilized, carrier free.
<b>Sterility</b>	Filtered before lyophilization through a 0.22 micron sterile filter.
<b>Endotoxin</b>	<0.1 ng/μg
<b>Production</b>	Produced in Human Embryonic Kidney 293 cells and purified via sequential chromatography.
<b>Reconstitution recommendation</b>	Centrifuge the vial briefly, before opening to bring the contents to the bottom. Reconstitute the lyophilized protein in sterile PBS to a concentration of 0.2–0.5 mg/mL. Apportion the reconstituted protein into working aliquots and store at ≤ -20°C. Make any further dilutions of the reconstituted protein in medium or buffered solution containing carrier protein, such as PBS with 0.1% BSA.
<b>Activation procedure</b>	Activate 100 μg/mL of Kallikrein 11 in a reaction containing 10 μg/mL thermolysin, 50 mM Tris, 10 mM CaCl <sub>2</sub> , 150 mM NaCl, 0.05% Brij 35, pH 7.5 for 15 minutes at 37°C. Stop the thermolysin reaction by adding EDTA to a final concentration of 50 mM.
<b>Suggested working dilutions</b>	The optimal concentration should be determined for each specific application.
<b>Storage</b>	Store the lyophilized protein at 2–8°C or -20°C for long term storage, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ -20°C. Avoid repeated freeze-thaw cycles.
<b>Expiration date</b>	Expires one year from date of receipt when stored as instructed.
<b>References</b>	Yoshida, S, Taniguchi, M, Suemoto, T, et al. (1998). cDNA cloning and expression of a novel serine protease, TLSP. <i>Biochim. Biophys. Acta</i> 1399 (2-3): 225–8. Diamandis, EP, Yousef, GM. (2002) Human tissue kallikreins: a family of new cancer biomarkers. <i>Clin Chem.</i> 48(8): 1198–205.

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## Explanation of Symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		



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