

# Recombinant Human PCT/Procalcitonin (rHuPCT/Procalcitonin)

## PrimeGene Technical Data Sheet

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<b>Catalog Number:</b>	301-16
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 12.8 kDa, a single non-glycosylated polypeptide chain containing 116 amino acids.
<b>Quantity:</b>	10µg/100µg/1000µg
<b>AA Sequence:</b>	APFRSALESS PADPATLSED EARLLLAALV QDYVQMKASE LEQEQEREGS SLDSPRSKRC GNLSTCMLGT YTQDFNKFHT FPQTAIGVGA PGKKRDMSSD LERDHRPHVS MPQNaN
<b>Purity:</b>	> 98 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Data is not available.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris-HCl, pH 8.0, 150 mM NaCl.
<b>Endotoxin:</b>	Less than 0.1 EU/µg of rHuPCT/Procalcitonin as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● Refer to lot specific COA for the Use by Date when stored at ≤ -20 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### ***Recombinant Human PCT/Procalcitonin***

Procalcitonin (PCT) belongs to a group of related proteins including calcitonin gene-related peptides I and II, amylin, adrenomodulin and calcitonin (CAPA peptide family). PCT, like other peptides of CAPA family, appears from the common precursor pre-procalcitonin consisting of 141 amino acids by removal of 25 amino acids from the N-terminus. PCT undergoes successive cleavages to form three molecules: N-terminal fragment (55 a.a.), calcitonin (32 a.a.) and katalcalcin (21 a.a.). PCT is a peptide precursor of the hormone calcitonin, the latter being involved with calcium homeostasis. PCT is produced by parafollicular cells (C cells) of the thyroid and by the neuroendocrine cells of the lung and the intestine. But its level is related to the severity of bacterial sepsis, it is considered to be one of the earliest and most specific markers of sepsis.