

## Recombinant Human PCT/Procalcitonin

### Information

<b>Gene ID</b>	
<b>Accession #</b>	
<b>Alternate Names</b>	
<b>Source</b>	Escherichia coli
<b>M.Wt</b>	Approximately 12.8 kDa, a single non-glycosylated polypeptide chain containing 116 amino acids.
<b>AA Sequence</b>	APFRSALESS PADPATLSED EARLLLAALV QDYVQMKASE LEQEQUEREGS SLDSPRSKRC GNLSTCMLGT YTQDFNKFHT FPQTAIGVGA PGKKRDMSSD LERDHRPHVS MPQNNAN
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - Refer to lot specific COA for the Use by Date when stored at $\leq -20^{\circ}\text{C}$ as supplied. - 1 month, $2$ to $8^{\circ}\text{C}$ under sterile conditions after reconstitution. - 3 months, $-20$ to $-70^{\circ}\text{C}$ under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a $0.2\ \mu\text{m}$ filtered concentrated solution in $20\ \text{mM}$ Tris-HCl, pH 8.0, $150\ \text{mM}$ NaCl.
<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 $0.1$ - $1.0\ \text{mg/ml}$ . Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Data is not available.
<b>Shipping Condition</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below..
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10 $\mu\text{g}$	100 $\mu\text{g}$	500 $\mu\text{g}$
Recombinant Human PCT/Procalcitonin	10 $\mu\text{g}$	100 $\mu\text{g}$	500 $\mu\text{g}$

## Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses
Endotoxin	Less than 0.1 EU/μg of rHuPCT/Procalcitonin as determined by LAL method.

## Description

Procalcitonin (PCT) belongs to a group of related proteins including calcitonin gene-related peptides I and II, amylin, adrenomedullin 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 katacalcin (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.

## Reference

**APExBIO Technology**

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