

**BACKGROUND**

Procalcitonin is a precursor of the peptide hormone called calcitonin. Procalcitonin is mainly produced by the C cells of the thyroid and certain endocrine cells of the lung. Under normal expression conditions, procalcitonin is immediately cleaved into three specific fragments, an N terminal residue, calcitonin and katalcalcin. Levels of unprocessed procalcitonin have been shown to rise significantly after bacterial infection, trauma or shock.

Recombinant human Procalcitonin is a non-glycosylated protein, containing 116 amino acids and having with a molecular weight of 12.8 kDa.

**Alternative Names:**

PCT

**Amino Acid Sequence:**

APFRSALESS PADPATLSED EARLLLAALV QDYVQMKASE  
LEQEEREGRS SLDSPRSKRC GNLSTCMLGT YTQDFNKFHT  
FPQTAIGVGA PGKKRDMSSD LERDHRPHVS MPQAN

**TECHNICAL INFORMATION**

**Source:** *E.coli*

**Physical Appearance:**

Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**

Recombinant human Procalcitonin is lyophilized from 10 mM Na<sub>2</sub>PO<sub>4</sub>, pH 7.5.

**Stability:**

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

**Protein Content and Purity determined by:**

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

**Endotoxin Level:**

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

**Biological Activity:**

Activity is tested using Biomerieux reagents on the Min-Vidas at 80 ng/ml, with a typical recovery of 80%.

*Products are for research use only. They are not intended for human, animal, or diagnostic applications.*

