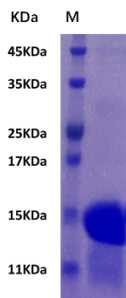


## Specification

<b>Product name:</b>	Recombinant human PCT antigen
<b>Source:</b>	<i>E.coli</i> derived
<b>Accession #:</b>	P01258
<b>SDS-PAGE:</b>	11-15 kDa, reducing conditions
<b>Construction:</b>	PCT (tag free)
<b>Predicted Molecular Mass:</b>	13.8kDa
<b>Activity:</b>	Immunoreactivity was confirmed by reacting with monoclonal antibodies specific to human PCT .
<b>Application:</b>	ELISA, immunology, others unspecified.
<b>Form:</b>	Liquid
<b>Formulation:</b>	20 mM Tris, 300 mM NaCl, pH 8.0
<b>Stability &amp; Storage:</b>	Stable at -80°C
<b>Shipping condition:</b>	The product is shipped on ice pack.Upon receiving, store it immediately at the recommended temperature.
<b>Conc. Determined:</b>	BCA
<b>Purity:</b>	>90%

## SDS-PAGE



Greater than 90% as determined by reducing SDS-PAGE. (QC verified).

## BACKGROUND

Calcitonin is a secreted protein which belongs to the calcitonin family. Calcitonin is cleaved into the following two chains: Calcitonin and Katalcalcin. Katalcalcin is a potent plasma calcium-lowering peptide. Calcitonin is a 32- amino acid linear polypeptide hormone. Calcitonin acts to reduce blood calcium ( $\text{Ca}^{2+}$ ), opposing the effects of parathyroid hormone (PTH). Its importance in humans has not been as well established as its importance in other animals, as its function is usually not significant in the regulation of normal calcium homeostasis. Calcitonin causes a rapid but short-lived drop in the level of calcium and phosphate in blood by promoting the incorporation of those ions in the bone.

### References:

1. Assicot M, et al. (1993) High serum procalcitonin concentrations in patients with sepsis and infection. *Lancet* 341(8844), 515-518.
2. Linscheid P, et al. (2003) In vitro and in vivo calcitonin I gene expression in parenchymal cells: A novel product of human adipose tissue. *Endocrinology* 144, 5578-5584.
3. Simon L, et al. (2004) Serum procalcitonin and C-reactive protein levels as markers of bacterial infection: A systematic review and meta-analysis. *Clin. Infect. Dis.* 39, 206-217.
4. Sponholz C, et al. (2006) Diagnostic value and prognostic implications of serum procalcitonin after cardiac surgery: a systematic review of the literature. *Critical Care* 10, R145.
5. Meisner M and Reinhart K (2001) Is procalcitonin really a marker of sepsis? *Int J Intensive Care* 8(1), 15-25.