



Procalcitonin latex reagent intermediate

What is procalcitonin (PCT)?

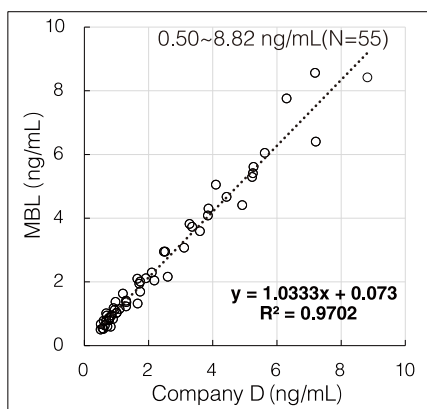
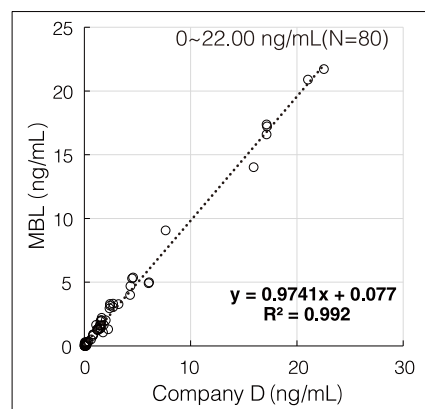
- ◆ PCT, a precursor of calcitonin (CT), is a polypeptide consisting of 116 amino acids with a molecular weight of 13 kDa.
- ◆ Given that PCT is produced by C-cells in the thyroid gland and metabolized to calcitonin, which possesses hormonal activity, and subsequently secreted into the blood, PCT is hardly present in the blood of healthy individuals.
- ◆ For example, in a bacterial infection, the action of bacterial bodies and toxins produces inflammatory cytokines, and these cytokines stimulate multiple organs to produce and secrete PCT.

Clinical significance

- ◆ Usefulness as a marker for systemic bacterial infection.
- ◆ PCT is useful for the diagnosis and determination of severity of bacterial sepsis.
- ◆ PCT is useful for distinguishing bacterial infection from viral and fungal infections, collagen diseases, tumor fever, and other diseases, as well as the determination of severity.
- ◆ Because the PCT concentration reflects the degree of inflammation due to infection, patient follow-up is useful for prognostication.

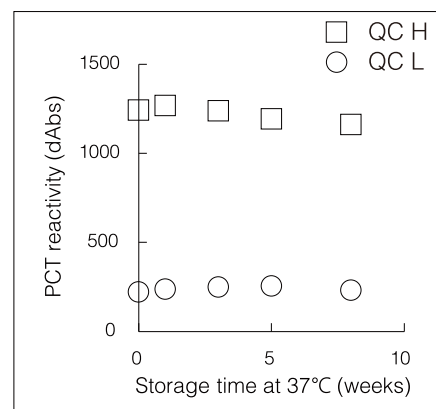
Product performance

Correlation



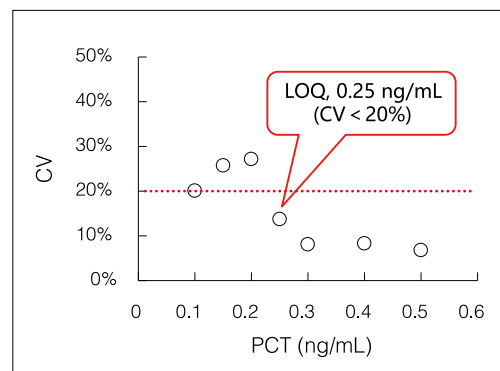
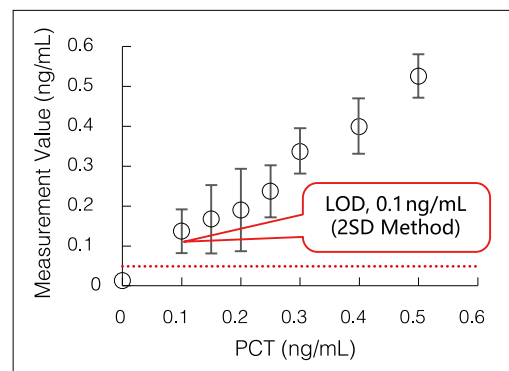
Good correlation with luminescent assay reagents that are well known in Japan.

Accelerated test



Accelerated test results were also excellent.

Sensitivity



More sensitive than competing products.

Product specification

Measurement range: 0.20-50.00 ng/mL

Product Name	Items	Ratio	S/R1/R2 (μL)	Wave (Sub/Main) (Hitachi 7180)
Procalcitonin	PCT 03	3:1	15/180/60	-/600
	PCT Calibrator	6 levels	Liquid or Lyophilized	
	PCT QC	2 levels		

References

- 1) Bregenzler T. *et al.* Procalcitonin Levels Predict Bacteremia in Patients With Community-Acquired Pneumonia A Prospective Cohort Trial. *Chest*. 2010 Jul, 138(1):121-9.
- 2) Krammer I. *et al.* Procalcitonin in diagnosis of severe infections. *Eur J Med Res*. 1996 Apr 18, 1(7):331-3.

Research and development of MBL's latex intermediate reagent in Japan has revealed outstanding performance and high quality.

We provide latex immunoturbidimetric intermediate reagents coated with appropriate antibodies in response to the needs of diagnostic reagent companies.

Please ask our sales representatives concerning our samples and technical information.