

## Real Time PCR



**Brand:** Applied Biosystems

**Model:** 7500 (2 units)

**Custodian:** Nij kramol

**Location:** K635 Room, 6<sup>th</sup> Floor, Chaloeprakiet Building, Phyathai Campus

### **Description and Specification:**

1. The Applied Biosystems 7500 Real-time PCR detection system is used to perform the quantitative real-time polymerase chain reaction.
2. The Applied Biosystems 7500 Real-Time PCR System delivers highspeed cycling capabilities with a new fast ramping Peltier-based thermal cycling block.
3. The systems can be used with 96-well plates and tubes (individual or 8-strip).
4. Temperature Uniformity is +/- 0.50 °C. Moreover, temperature accuracy is +/-0.25°C.
5. Five of colors detection (multicolor detection) in the same experiment.
6. All sample wells are illuminated with a tungsten halogen lamp.

7. Fluorescence emission is detected through five emission filters to a charge-coupled device (CCD) camera.
8. Advanced optical configuration supports a broader range of fluorophores, including FAM™ / SYBR® Green I, VIC™/JOE, NED™/TAMRA™/Cy3®, ROX™/Texas Red® and Cy5®.
9. Can be added other fluorescent dyes in the same wavelength without changing filter sets.
10. The 7500 Real-time PCR System delivers high-quality results within 2 hours.
11. Can be upgrade to 7500 fast Real-time PCR systems which delivers high-quality results within 30 min.
12. The supported volume range is between 20 – 100 ul.
13. Analysis mode show below:
  - 13.1 Standard Curve
  - 13.2 Relative Standard Curve
  - 13.3 Allelic Discrimination
  - 13.4 Plus/Minus
  - 13.5 Expanded Melt Curve Options
14. Both of 5'nuclease TaqMan assay and SYBR Green assay can be used with 7500 Real-time PCR system.
15. The 7500 System can be distinguish between samples containing 5,000 and 10,000 template DNA copies, with a statistical confidence level of 99.7%.
16. Nine logs of linear dynamic range.
17. Detection of 1 copy of template in a 50 µL reaction for a single reporter TaqMan® assay, with 99.7% confidence.