

Technical Note

TN5: Optimal use of Stratagene Mx3005P:

Summary

To ensure MycAssay™ kits achieve the expected performance characteristics (as stated in the Instructions For Use), Myconostica recommend the following practices when using the Stratagene Mx3005P with MycAssay™ kits:

- **For the first run of the day:**
 - Switch on ~20mins before use (as per manufacturer's instructions).
- **When conducting sequential runs:**
 - After the first run, allow the instrument to cool down for ~1hr before performing a MycAssay™ run.

If the 'cool down' procedure is not followed there is a risk of obtaining false negative results.

Background

- Due to the nature of the heat source (Quartz tungsten-halogen source lamp) used for the thermal cycling, the Stratagene Mx3005P was tested to determine whether consecutive PCR runs affect the instruments' sensitivity.

Methods

- To assess the sensitivity of the instrument, a run including replicates of low level positive samples was conducted:
 - Immediately after a previous run.
 - Following a 1 hour 'cool off period' after the previous run.
- The positivity rates between the two conditions were then compared.

Results

Positivity Rates:

- **95% of replicates were positive at the clinical cut off when the instrument was used for the first time that day**
- **75% of replicates were positive when the assay was conducted immediately after a previous run**
- **This recovered to 95% once again when the instrument was allowed to cool down for 1 hour after the previous assay was run**

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