

Document type: procedure	USE AND MAINTENANCE OF TWINCUBATOR
Document code: Uganda QP 07-06-15	
Confidentiality: confidential	

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Issued by: Head of Laboratory Research	Date of issue: 30NOV08
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1. PURPOSE

This SOP describes the using and maintenance of the TwinCubator with hybridization block. The TwinCubator (Hain Lifescience) is intended for use with DNA strips corresponding to reverse hybridization assays and was designed for molecular diagnostic assays developed by Hain Lifescience.

2. SCOPE

This SOP relates to all procedures involving line probe assays performed in the FIND Research Laboratory, Kampala, Uganda. The TwinCubator is situated in the Post-Amplification room and must not be used in the other laboratories.

3. RESPONSIBILITIES

All staff members working in the FIND Research Laboratory are responsible for the implementation of this operating procedure.

All users of this procedure who do not understand it or are unable to carry it out as described are responsible for seeking advice from their supervisor.

4. CROSS-REFERENCES

Document Matrix_Uganda QP 01-03-03

Refer to SOPs listed under 07-01 (General Procedures) and 07-05 (Molecular Methods).

See: *Document Matrix_Uganda QP01-03-03.doc*

Location: *Hard copy: FIND Uganda SOPs*

5. PROCEDURES

5.1. Set-up

- TwinCubator, installed after checking compatibility of voltage supply
- Ensure adequate ventilation by placing TwinCubator at least 25 cm away from adjacent instruments or walls

- Ensure that TwinCubator is placed on a firm and flat surface.
- Perform initial test run at maximal speed to ensure that unit does not move during shaking process.

5.2. Operation

5.2.1 Running an existing program

- For more details:

See: *Genotype MTBDRplus _ Uganda QP 07-05-01.doc*

Location: *Hard copy: FIND Uganda SOPs*

- TwinCubator can store a maximum of 9 programs, each containing up to 20 steps.
- After turning unit on, use arrow keys to switch between program and step numbers.
- Select desired program with +/- key.
- Running program may be paused with left arrow key. Temperature will be maintained at current setting but shaking will be paused. Shaking may be restarted with right arrow key.
- Advance from one program step to the next by pressing right arrow once. Start selected program step by pressing the right arrow once more.
- A tone signals the end of an incubation step; shaking and heating will be continued until right arrow is pressed once.

5.2.2 Editing programs

- To edit programs, turn instrument on with power switch while holding down 'Prog' key for short time.
- Select program and step to be edited with arrow and +/- keys.
- Individual set temperatures, times, shaking frequencies, and step models are selected with arrow keys and desired values adjusted with +/- key.

5.3. Maintenance

- If any liquid (sample or reagent) enters wells of hybridization block, wells must be immediately cleaned with mild soap solution followed by distilled or de-mineralized water.

- Plexiglass lid should be regularly wiped during operation to remove condensation accumulating over time.
- Plastic trays used for hybridization reactions may be reused a few times following rinse with distilled water.

5.3.1 Cleaning

- Clean TwinCubator on a weekly basis using 1% bleach solution followed by water.
- Prior to cleaning TwinCubator, power must be switched off and power cable removed.
- Frame of unit may be cleaned with slightly moist cloth or ethanol. Avoid aggressive cleaning agents.
- Record cleaning in the *Laboratory Cleaning and Maintenance Logbook*

Use: *Laboratory Cleaning and Maintenance Logbook_form.doc*

Location: *Hard copy: FIND Uganda SOPs*

5.3.2. Servicing

- In the event of failure of the unit, an *Equipment Failure Report* must be completed and the service representatives must be called out.
- An *Equipment Failure Notice* must be placed on the unit indicating that work is prohibited.

Use: *Equipment Failure Notice _sign.doc*

Location: *Hard copy: FIND Uganda SOPs*

Use: *Equipment Failure Report _form.doc*

Location: *Hard copy: FIND Uganda SOPs*

- Unit should only be opened by approved expert.
- Prior to shipping for servicing and repairs, TwinCubator should be cleaned and decontaminated.
- Case should be cleaned with precision wipe soaked in 70% ethanol.
- Wells of hybridization block should be cleaned with 1.5% bleach solution..

- Completed and signed decontamination protocol must be included in the shipment to the manufacturer.
- Plexiglass lid is the only element that may be exchanged in event of defect; push lid up and sideways until unhinged out of the spring bearing.
- New lid can be inserted 'last in first out.'

6. REFERENCES

Reference Manual: TwinCubator, Hain Lifescience.

7. CHANGE HISTORY

New version # / date	Old version # / date	No. of changes	Description of changes	Source of change request