



LOCATION DETAILS

School/Branch: School of Molecular & Biomedical Science

SAFE OPERATING PROCEDURE DETAILS

Using a transilluminator (both enclosed and non-enclosed)

Date Prepared:

PREPARED BY: Name, position, & Signature (insert names of supervisor, HSO, subject matter expert)

Kate Dixon – School Health & Safety Officer
Jeremy Timmis – Professor - Genetics

Signature:

RISK ASSESSMENT

Has a risk assessment been completed and all other environmental considerations been made?

See risk assessment dated:

24/11/2009

Risk Rating:

- Low
- Medium
- High
- Very High

YES

RISKS IDENTIFIED

- Ultraviolet radiation
- Electrical shock from electrical components of the machine
- Possible mutagenic effect of fluorescent dyes used to stain nucleic acids

SAFETY PRECAUTIONS

The following control measures **MUST** be adhered to:

- FULL FACE protection must be worn, not just eye protection (if the Transilluminator is not enclosed)
- Gloves and lab coats must be worn
- Transilluminator must be switched off when not in use
- All staff/students must be instructed in the machine's safe operation by a competent person
- Non enclosed Transilluminators must only be used in a dedicated, isolated area that has prominent UV signage
- Enclosed Transilluminators must have a Warning UV sign affixed to the front of the machine
- Equipment must have a current electrical testing tag

PERSONAL PROTECTIVE EQUIPMENT REQUIRED

The following PPE must be worn at all times:

- FULL FACE shield (for non-enclosed transilluminators)
- Full length lab coat (that covers arms)
- Gloves

SAFE OPERATING PROCEDURE

NON ENCLOSED TRANSILLUMINATOR

1. Put on appropriate personal protective equipment.
2. Check the electrical testing tag.
3. Make sure the surface area of the machine is clean. Use a damp cloth to clean working area.
4. Place gel/sample on the filter area of the Transilluminator. NOTE: Do not place SYBR Green stained gel directly onto UV Transilluminator. Be sure to place a piece of plastic wrap between the two surfaces.
5. Place fluorescent rulers on each side of sample to easily measure any movements of DNA.
6. Shut off the lights and turn on the Transilluminator.
7. After viewing, shut off the machine and turn on the lights.
8. Clean the machine with alcohol and dry with paper towel.

ENCLOSED TRANSILLUMINATOR

1. Put on appropriate personal protective equipment.
2. Check the electrical testing tag.
3. Make sure the surface area of the machine is clean. Use a damp cloth to clean working area.
4. Place gel/sample on the filter area of the Transilluminator. NOTE: Do not place SYBR Green stained gel directly onto UV Transilluminator. Be sure to place a piece of plastic wrap between the two surfaces.
5. Place fluorescent rulers on each side of the sample to easily measure any movements of DNA.
6. Close the Transilluminator cover.
7. Run process.
8. Ensure UV lights are off before opening the cover.
9. Clean the machine with alcohol and dry with paper towel.

OTHER INFORMATION

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ADMINISTRATION

Note: This Safe Operating Procedure must be reviewed :

- a) after any accident, incident or near miss;
- b) when training new staff;
- c) if adopted by new work group;
- d) if equipment, substances or processes change; or
- e) within 5 years of date of issue.