



IN THE LOOP

Preserving Pure Culture

ESCO
SCIENTIFIC

A **pure culture** is a significant research subject in the field of microbiology. It contains a single species of microorganism derived from a mixed culture. Subculturing is a known method used to preserve the viability of the sample, but this practice is laborious and exposes the culture to contaminants. In modern times, refrigeration offers a great solution. It can be used to maintain the viability and purity of pure cultures simultaneously, without the need for repeated subculturing.

ISOLATION



A small sample from a mixed population is aseptically transferred into a fresh sterile growth medium. The cells are dispersed across the surface of the medium or thinned many folds until one species is isolated.

INCUBATION



Esco Laboratory Incubator

Growing of microorganisms under controlled temperature for a period of time.

REFRIGERATION



Esco HP Series Laboratory Refrigerators

Lab fridges provide short-term storage. Low temperature (4°C) can slow down metabolic activities of the microorganisms; 2-3 weeks for bacteria and 3-4 months for fungi.

5 TIPS TO PREVENT CROSS-CONTAMINATION DURING THE PROCESS OF ISOLATION

1. STERILIZE TOOLS



Autoclave the tools, glassware, and culture media before use to ensure sterility.

2. DISINFECT WORK SURFACE



Wipe down the work surface with 70% Isopropyl alcohol before and after the procedure.

3. LABEL AND ORGANIZE



Assign an area for tools, workspace, and output accordingly. Label all bottles and media used.

5. WORK IN A BIOSAFETY CABINET



A biosafety cabinet protects users from exposure to biohazards. It also provides a sterile environment ideal for isolation procedures.

4. WEAR PERSONAL PROTECTIVE EQUIPMENT



Primarily protect yourself from exposure to microorganisms by wearing the complete PPE.



@escolifesciences



@escolifesci



@esco

9010481_Preserving Pure Culture_IntheLoop_LR_031721
Esco can accept no responsibility for possible errors in catalogues, brochures and other printed materials. Esco reserves the right to alter its products and specifications without notice. All trademarks and logos in this material are the property of Esco and the respective companies.

Esco Micro Pte. Ltd.
21 Changi South Street 1 Singapore 486777
escolifesciences.com

