



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.

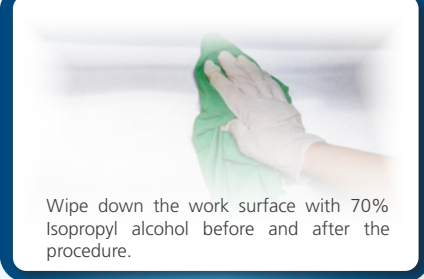
## 5 TIPS TO PREVENT CROSS-CONTAMINATION DURING THE PROCESS OF ISOLATION

### 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.

