# **AG-POTASSIUM HYDROXIDE (10%) IFU**

## **PRINCIPLE:**

AstraGene's 10% Potassium Hydroxide is a reagent that is recommended for use in qualitative procedures to detect fungal elements in clinical specimens by microscopic examination. It is one of the simple reagents used as a part of standard procedures for detecting presence of fungal infection in the tested sampl KOH acts to disrupt cellular sheets or clumps of proteinaceous debris that may be present and clears the specimen for easier fungal detection by digesting the proteinaceous material in the specimen and leaving the fungal cell wall intact for direct microscopic observation. AstraGene's 10% Potassium Hydroxide is supplemented with 10% glycerol. The addition of glycerol to the KOH solution reduces the amount of precipitation that forms in the reagent container and also helps prevent KOH preparations from dying.

## **PACKAGE CONTENTS:**

Description	Catalogue Number	Quantity
10 % KOH	AG/Reagent/KOH/22/01	200 mL

#### **STORAGE & STABILITY:**

This product is ready for use and no further preparation is necessary. Store product in its original container at 15-25°C until used. Allow product to equilibrate to room temperature before use.

# **SPECIMEN COLLECTION AND PREPARATION:**

Specimen Type: Scraping of skin, hair, piece of fingernail, sputum or fungal culture. Specimens should be collected and handled following recommended guidelines

#### **MATERIALS REQUIRED:**

Sterile inoculating loops, Test Samples, Glass slides, Coverslips, Teasing needles, Droppers, Microscope, Slide warmer.

#### **DIRECTIONS / PROCEDURE:**

- 1 Place a drop of 10% KOH in the center of a clean, glass slide.
- 2 Place specimen in 10% KOH, gently tease the specimen.
- 3 Cover with a coverslip, and press gently to make a thin mount.
- 4 Let it settle for 5-10 minutes in order to destroy all the structures in the sample (except fungi)
- 5 The procedure may be accelerated by cautious heating using the burner
- 6 Examine the slide for fungal elements by bright field or phase contrast microscopy

#### **INTERPRETATION OF THE RESULTS:**

- Examine the slide microscopically on low power and confirm observations with high power.
- Observe for hyphae, spores, conidia, budding yeast, spherules, or schlerotic bodies. Consult appropriate references when necessary.
- Yeast cells, mycelium, hyphae, budding structures (cell reproduction elements) appears slightly green against transparent background.

### **LIMITATIONS:**

- Gentle heating may speed the activity of the KOH, but it may be harmful to the specimen if overdone.
- A drop of Lactophenol Aniline Blue or Calcofluor White may be added to 10% KOH to enhance visibility of fungal elements.
- Cotton swabs should not be used in slide preparations as the cotton strands resemble hyphae.
- Potassium hydroxide preparations are presumptive and should not be substituted for culture and identification.
- Prolonged exposure to KOH will eventually be destructive to hyphal elements.

#### WARNING & PRECAUTIONS:

- For In Vitro diagnostic use by professionals only.
- Directions should be read and followed carefully and do not use beyond the stated expiration dates.
- Safety precautions should be taken in handling, processing, and discarding all clinical specimens and other materials.
- This product should not be used if the color has changed, the expiration date has passed, or there are other signs of deterioration.





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