

Lugol's Staining Solution (5%)

G1506553

Storage: Room Temperature. Store in the dark.

Introduction:

Lugol's Staining Solution, also known as Lugol's Iodine, Lugol's Solution or Lugol's Reagent, is an aqueous solution of iodine and potassium iodide. It was invented by Lugol in 1829 and named after him. In the past, Lugol's Iodine was often used as a disinfectant and bactericide for emergency disinfection of drinking water, and in laboratories for detecting starch and various other substances.

Aladdin Lugol's Staining Solution (5%) adopts a classic formula and has the following applications: detecting starch in samples such as leaves and food; cell staining to stain cell nuclei for easier observation; the Schiller Test, which is used in colposcopy to examine the vagina and cervix for cancerous changes. Normal vaginal tissues are stained brown due to their high glycogen content, while cancerous cells are not stained and appear pale in contrast to the surrounding tissues; acting as an oxidizing bactericide, etc. Lugol's Staining Solution (5%) is suitable for use as a mordant in combination with crystal violet, safranin and other dyes for staining Gram bacteria, with an iodine content of 5%. Lugol's Staining Solution is particularly suitable for use as a mordant for smearing and staining the cervix to determine the possibility of cervical cancer. This reagent is for research use only and is not intended for clinical diagnosis or any other purposes.

Operating Procedures (For Reference Only):

1. Perform the operation according to the specific experimental requirements or refer to the steps below.
2. Gently swab the cervix with a normal saline-moistened cotton ball or dry cotton swab. Do not apply excessive force to avoid damaging the cervical epithelium.
3. Smear the cervix with a cotton ball soaked in Lugol's Staining Solution (5%). Ensure the cotton ball is large enough to fully cover the cervix. Gently press the cervix (including the external cervical os) with the cotton ball in upward, downward, leftward and rightward directions to allow the Lugol's Staining Solution to fully penetrate the cervical epithelium. After one minute, illuminate the area with a regular light source and directly observe the reaction of the cervical epithelium to the Lugol's Staining Solution.
4. Make a preliminary diagnosis based on the degree of non-staining, surface morphology, border condition, size, distance from the squamocolumnar junction, and other factors. Normal cervical epithelium turns reddish-brown or black after iodine application. Non-stained areas or partially iodine-stained areas are considered suspicious lesion regions. Areas with cervical intraepithelial neoplasia (CIN) or invasive carcinoma present as thick mustard-yellow or orange-yellow leukoplakia. The application of iodine solution during



colposcopy helps identify lesion areas missed by the acetic acid method and can more clearly delineate the scope of abnormalities. The test results are classified as VILI negative, VILI positive, or suspected cancer, and should be recorded in the clinical examination form.

Staining Results:

Cartilage matrix, cytoplasm Red

Precautions:

1. This reagent is intended for research use only and not for clinical diagnosis.
2. For your safety and health, wear a lab coat and disposable gloves during operation.

