Lugol's Iodine

S019

Intended use

Lugol's iodine is used as staining solution to detect intestinal protozoa and helminth ova and larvae.

Composition**

Ingredients

Iodine	5.0 gm
Potassium iodide	10.0 gm
Distilled water	100.0 ml

**Formula adjusted, standardized to suit performance parameters

Directions

1. Dilute Lugol's iodine 1:5 with sterile distilled water prior to use. (This is working solution should be freshly prepared approximately every 3 weeks)
2. Prepare a direct smear of the specimen by mixing a small portion (2mg) of feces with a drop of sterile saline (0.85%) on a clean dry glass slide.
3. Place a coverslip over the sample and examine the wet mount preparation for the presence of motile protozoa. The organisms are very pale and transparent and are more easily observed under low light intensity.
4. After thorough examination of the wet mount a drop of Lugol's iodine (working solution) can be placed at the edge of coverslip, or a new mount can be prepared using iodine alone. The prepared slides can be sealed if desired.
5. Examine the slides for the presence of brown parasitic structure.

Principle And Interpretation

Lugol's iodine is recommended for the detection of intestinal protozoa or helminth ova or larvae in wet mount preparations and concentration techniques. This is a non-specific and rapid contrast dye that is added to direct wet mounts of fecal material to help in differentiating parasitic cysts from host white blood cells. Many protozoa and cysts take up dye and appear brown while other objects in the sample remain clear. Lugol's iodine stain the protozoan nuclei and intracytoplasmic organelles brown this making their identity easier. Dilution step is necessary prior to use as strong iodine solutions tend to coagulate fecal particles and destroy the refractile nature of protozoan organisms. For fresh, unpreserved fecal samples, a direct wet mount should be prepared to detect the presence of motile protozoan trophozoites.

Type of specimen

Clinical sample : Fecal samples

Specimen Collection and Handling

1. For clinical samples follow appropriate techniques for handling specimens as per established guidelines.

Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/ eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

Wet mount preparation of sample should be thoroughly examined before adding Lugol's iodine, since iodine tend to paralyze the motility of parasitic organisms and may obscure some parasitic structures.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

Quality Control

- **Appearance :** Dark reddish brown, coloured solution.
- **Clarity :** Clear without any particles
- **Microscopic Examination :** Staining of intestinal protozoa is carried out and staining characteristic of organisms is observed under microscope by using oil immersion lens.
- **Results :** Glycogen: Reddish brown
  Cytoplasm: Yellow
  Nuclei: Light refractile bodies

Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques

Reference

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4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.

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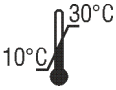

Storage temperature

Do not use if package is damaged

In vitro diagnostic medical device

CE Marking

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