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Temporary staining methods for protozoa

Stains for wet preparations following concentration by the formol-ether method.

Lugol's iodine solution (Double strength)

Reagent 1

Potassium iodide	20 g
Iodine	10 g
Distilled water	100 mL

Add potassium iodide to the distilled water; when dissolved, add the iodine crystals. Store in a brown bottle. The solution remains stable for many weeks, but if it is not used after some months, a fresh batch of reagent must be prepared.

Reagent 2

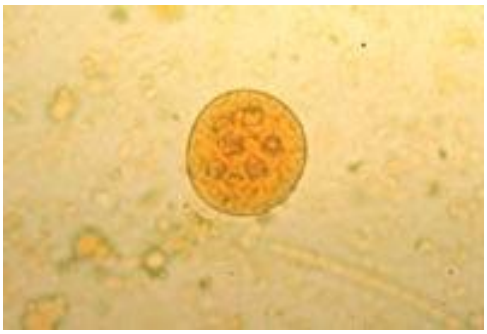
25% glacial acetic acid

Working Solution

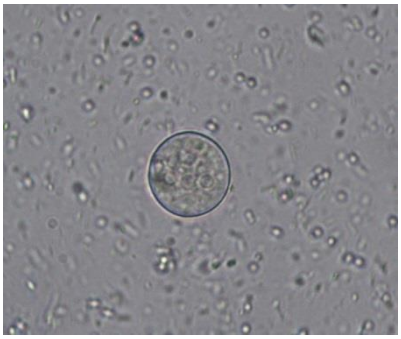
Mix equal parts of reagent 1and reagent 2 for use.

Comment

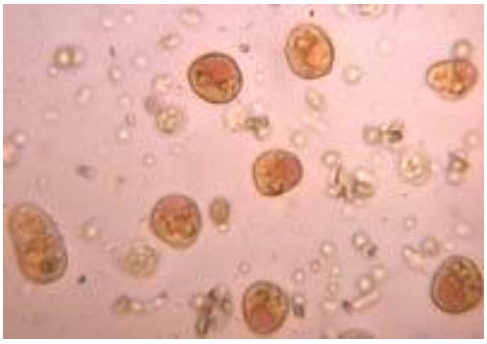
The addition of iodine to a stool concentrate highlights the internal inclusions of cysts; e.g. the nuclei and glycogen mass, thus aiding their identification. For example, the addition of iodine enhances refraction of nuclei of *Endolimax nana*, stains the peripheral chromatin of the nuclei of *Entamoeba* species and demonstrates the well-defined glycogen mass which is a feature of pre-cysts or immature cysts if *E. coli* and cysts of *Iodamoeba butschlii.* Iodine does not stain the chromatin bar of *Entamoeba* species.



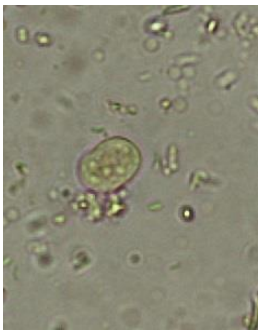
A cyst of *Entamoeba coli* stained with iodine



A cyst of *E. coli* without iodine



Cysts of *Iodamoeba butschlii* stained with iodine



Cyst of *E. nana* with iodione