ACRIDINE ORANGE STAIN

- For in vitro use only - Catalogue No. SA16

Our Acridine Orange Stain is used as a fluorescent staining agent to detect the presence of bacteria in blood cultures and other bodily fluids.

Acridine orange is a fluorochrome dye that can interchalate into nucleic acid. At a low pH under UV light, bacterial and fungal nucleic acid fluoresces orange whereas background mammalian nucleic acid fluoresces green. This rapid fluorescent staining procedure has been reported to be more sensitive than the Gram staining procedure in the detection of microorganisms in blood cultures, cerebral spinal fluid and buffy coat preparations. Acridine orange stain can also aid in the detection of *Acanthamoeba* infections, infectious keratitis, *Helicobacter pylori* gastritis, and cell wall deficient-bacteria such as *Mycoplasma*.

Formulation per Litre

Acridine Orange ..... 100 mg
Acetate Buffer .....1000 mL

pH 4.0 ± 0.2

Recommended Procedure

1. The prepared slide is fixed in methanol and air-dried.
2. Flood the slide with Acridine Orange Stain. Allow the stain to sit on the slide for 2 minutes.
3. Rinse the slide with tap water and air dry.
4. Examine under UV light at 100x to 1000x magnification.

Interpretation of Results

Bacteria and fungi will fluoresce bright orange against a green-fluorescing or dark background. Mammalian cells will fluoresce green if present.

Quality Control

After checking for correct pH, colour, depth, and sterility, the following organisms are used to determine the growth performance of the completed medium.

Organism	Expected Results
Escherichia coli ATCC 25922	Orange fluorescence

Storage and Shelf Life

Our Acridine Orange Stain should be stored in the upright position at room temperature. Under these conditions this medium has a shelf life of 52 weeks from the date of manufacture.

Ordering Information

Cat#	Description	Format
SA16-250	Acridine Orange Stain 250-mL	Each

References

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3. Hanes VE, Lucia HL. Acridine orange as a screen for organisms in clinical specimens and comparison with Gram's stain. Arch Pathol Lab Med 1988; 112:529-32.

4. Garcia LS, Bruckner DA. Diagnostic medical parasitology. New York: Elsevier, 1988.
5. Groden LR, Rodnite J, Brinser JH, Genvert GI. Acridine orange and Gram stains in infectious keratitis. Cornea 1990; 9:122-4.
6. Gay F, Traore B, Zanoni J, Danis M, Fribourg-Blanc A. Direct acridine orange fluorescence examination of blood slides compared to current techniques for malaria diagnosis. Trans R Soc Trop Med Hyg 1996; 90:516-8.
7. Forbes BA, Sahm DF, Weissfeld AS. Bailey and Scott's diagnostic microbiology. 10th ed. St. Louis: Mosby, 1998.
8. Ciancaglini E, Fazii P, Sforza GR. The use of differential fluorescent staining method to detect bacteriuria. Clin Lab 2005; 50:685-8.

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