

# Instructions for Use

## Modified Auramine O Stain Set



CATALOG NUMBER	DESCRIPTION	UNIT OF MEASUREMENT
345-250	Modified Auramine O (stain & decolorizer/quencher)	250ml bottle each/pkg
345-04L	Modified Auramine O (stain & decolorizer/quencher)	4x1 liter each/pkg

### INTENDED USE

The Modified Auramine O Stain Set uses a modified stain and quenching/decolorizing agent to make a rapid (2 minute) two-step fluorescent staining procedure for the visualization of *Mycobacteria* organisms in clinical specimens.

### SUMMARY AND EXPLANATION

Mycobacterial disease has been steadily increasing. For public health reasons, it is necessary to identify this disease as rapidly as possible.<sup>2</sup> The stains classically used are time consuming and often difficult to read if decolorization is not performed properly. Auramine O and Auramine-Rhodamine stains have been used successfully but have 3 steps with a prolonged staining time. Modified Auramine O Stain uses a combination of a quencher/decolorizer to make a rapid (2 minute) two step stain.

### PRINCIPLE OF THE PROCEDURE

The Modified Auramine O Stain Set is a two-minute two step fluorescent stain that is used to identify *Mycobacteria* species. This stain has been shown to have a specificity of 90%.<sup>3</sup>

### COMPONENTS

The Modified Auramine O Stain Set contains two reagents, first the Modified Auramine O Stain (250 ml or 4x1liter) and then a Decolorizer/Quencher (250 ml or 4x1liter).

### WARNINGS

Do not use product beyond the expiration date. Do not interchange or mix components from different staining sets.

Cultures should be performed for confirmation on positive smears. A negative result does not preclude the presence of *Mycobacteria*. Avoid wiping slide dry with cloth or paper towels, let slide air dry.

### STORAGE

Store at room temperature (15°C to 30°C)

### PROCEDURE

Preparation of Patient Sputum Smear:

Heat fix smear. Apply Auramine O Stain on smear for 1 minute. Rinse with deionized or tap water and drain slide. Apply Decolorizer/Quencher reagent for 1 minute. Rinse with

deionized or tap water and drain slide. Allow slide to air dry. Read slide under mercury or halogen light source fluorescent microscope using recommended techniques.

### EXPECTED RESULTS

View slides using a fluorescent microscope with a blue barrier filter (390-440 μ, blue) as used for Fluorocoin isothiocyanate.

*Mycobacteria* fluoresce green against a dark background. All other organisms will not be visible. Visualization of fluorescent bacilli is presumptive identification of *Mycobacteria species*. Cultures should be performed for confirmation. A negative result does not preclude the presence of *Mycobacteria*.

### QUALITY CONTROL

Prior to shipping, each lot of the Auramine O Stain Set has been quality controlled using an Acid Fast Control Slide. In addition, each lot should be quality controlled prior to use with standard laboratory procedures.

### LIMITATIONS

Some rapid growers do not fluoresce with this stain. Therefore, a culture is necessary for all specimens. Turbidity of the stain will not affect the results. Smears should be viewed as soon as possible.

### SAFETY

For *In vitro* diagnostic use. See SDS for additional information.

These reagents can be harmful or fatal to your health. Use them in a well-ventilated area. Use proper gloves when staining. Keep away from flames. Good general microbiology techniques should be followed.

### REFERENCES

1. Truant, J.P. *et al* Henry Ford Hospital Bull., 1962.
2. Ann. New York Acad. Sci 84,225-238, 1984.
3. Hendry, C *et al*. J. Clin. Micro. 47:4, 1206-1208, 2009.

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