Instructions For Use

FLS-IFU

Fite's Stain Kit

(For Leprosy and Nocardia)

Description and Principle

The Fite's Stain Kit (For Leprosy and Nocardia) is intended for use in the histological visualization of Mycobacteria that are characterized as weakly "acid-fast" such as *Mycobacterium leprae* and Nocardia species.
M. leprae and Nocardia species are more susceptible to decolorization by organic solvents such as xylene and alcohol. This modified technique for acid fast bacteria uses Peanut Oil along with Xylene to protect the organisms' lipoid capsule and preserve their "acid-fastness".

Expected Results

M. leprae:	Red
Nocardia:	Red
Background:	Blue

Kit Contents	**Storage**
1. Xylene-Peanut Oil Solution	18-25°C
2. Carbol Fuchsin Solution	18-25°C
3. Acid Alcohol Solution (1%)	18-25°C
4. Methylene Blue Solution	18-25°C

Suggested Controls *(not provided)*
Nocardia or Lepra bacillus infected tissue

Uses/Limitations

For In-Vitro Diagnostic use only.
Do not use if reagents become cloudy or precipitate
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile
Intended for FFPE sections cut at 5-10µm.
This procedure has not been optimized for frozen sections.
Frozen sections may require protocol modification.

Storage

Store kit and all components at room temperature (18-25°C).

Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

***Mycobacterium leprae* Procedure (Standard):**

1. Deparaffinize sections in 2 changes of Xylene-Peanut Oil Solution for 12 minutes each.

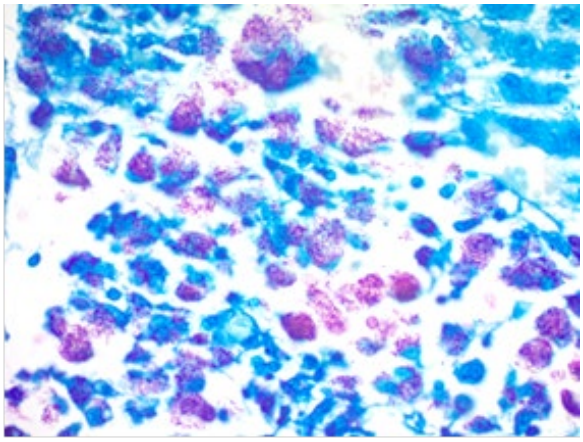
2. Air dry slide for 15 minutes "without" removing oil film covering tissue section. Remaining film prevents de-staining during differentiation.

3. Rinse slide in several changes of distilled water.

4. Incubate slide in Carbol Fuchsin Solution for 15 minutes.

5. Rinse slide in several changes of distilled water.

6. Differentiate section in Acid Alcohol Solution (1%) until background is pink.



7. Rinse slide in distilled water and check by microscope for correct differentiation.

8. Rinse in running tap water for 1 minute followed by 1 rinse in distilled water.

9. Dip slide 2-3 times in Methylene Blue Solution.

10. Dip slide quickly in distilled water and check by microscope for correct staining.

11. Air dry slide at room temperature.

12. Clear, and mount in synthetic resin.

Nocardia Procedure:

Preparation of Reagents Prior to Beginning:

Prepare Diluted Acid Alcohol Solution by mixing 25ml of Acid Alcohol Solution (1%) with 25ml of Distilled Water.

1. Deparaffinize sections in 2 changes of Xylene-Peanut Oil Solution for 12 minutes each.

2. Air dry slide for 15 minutes "without" removing oil film covering tissue section. Remaining film prevents de-staining during differentiation.

3. Rinse slide in several changes of distilled water.

4. Incubate slide in Carbol Fuchsin Solution for 15 minutes.

5. Rinse slide in several changes of distilled water.

6. Dip slide 2-3 times in Diluted Acid Alcohol Solution.

7. Rinse slide in distilled water and check by microscope for correct differentiation. Avoid decolorizing the Nocardia organism.

8. Rinse in running tap water for 1 minute followed by 1 rinse in distilled water.

9. Dip slide 2-3 times in Methylene Blue Solution.

10. Dip slide quickly in distilled water and check by microscope for correct staining.
11. Air dry slide at room temperature.

12. Clear, and mount in synthetic resin.

References

1. Echeverri, C., et al. Fite Stain Positivity in Rhodococcus equi: Yet Another Acid-Fast Organism in Respiratory Cytology – A Case Report. Diagnostic Cytopathology; April 2001, Volume 24, Issue 4, pages 244-246.
2. Crowder, C., Taylor, HW., Modified Fite Stain for Demonstration of Mycobacterium Species in Tissue Sections; Journal of Histotechnology; 1996, Volume 19; 2: pages 133-134.
3. Mallory, Pathological Technique; page 275.

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