

## DESCRIPTION

Staining of bacteria from cultures or patient specimens suspected to contain Mycobacteria tuberculosis can be easily achieved using one of two methods: (1) hot method or (2) cold method. The traditional Ziehl Neelsen Method employs the use of heat, for which it is known as the hot method. Ziehl Neelsen staining method uses “heated” Carbol-fuchsin solution as a primary stain, followed by a decolorizer solution and a methylene blue solution as a counterstain. Whereas the Kinyoun Method provides a cold method alternative for staining without the need for heat with brilliant green or methylene blue counterstain option.

Acid-fast organisms are stained red, while non-acid-fast organisms and the background are stained green or blue. A major characteristic of mycobacteria is that they are “acid-fast” and once stained with aniline dye, basic fuchsin, they are difficult to decolorize, thus retaining the red color even when exposed to an acid alcohol rinse. Whether you’re testing surgical specimens, respiratory or sputum specimens, the two counterstains brilliant green and methylene blue will provide easy identification to the non-acid fast organisms.

## PROCEDURE (Kinyoun Method and Ziehl Neelsen Method)

1. Fix the slide.
2. Place fixed smear on a staining rack.
3. Stain slide using preferred hot or cold method:  
Ziehl Neelsen (hot method): Flood slide with Ziehl Neelsen solution and heat: 3 minutes (avoid boiling)  
Carbol Fuchsin (cold method): Flood slide with Carbol Fuchsin solution: 5 minutes
4. Rinse gently with DI water.
5. Remove excess stain using the Decolorizer solution until the rinses appear clear.
6. Rinse gently with DI water.
7. Flood slide with Counterstain (Methylene Blue or Brilliant Green) for 30 seconds.
8. Rinse gently with DI water until clear.
9. Examine dry under high magnification and verify under oil immersion.

## RESULTS

The “acid fast” organisms will appear red

Non-“acid fast” organisms will appear blue or green

## ORDERING INFORMATION

Cat. #	Description	Sizes
6300	AFB Kinyoun Set	3x8oz
6301	AFB Kinyoun, Carbol Fuchsin	8oz, 16oz
6302	AFB Kinyoun, Decolorizer	8oz, 16oz, 1 Gallon
6303	AFB Kinyoun, Brilliant Green	8oz, 16oz
6305	AFB Kinyoun, Methylene Blue	8oz, 16oz
6309	AFB Ziehl-Neelsen Set	3x8oz
6310	AFB Ziehl-Neelsen, Carbol Fuchsin	8oz, 16oz
6320	AFB Ziehl-Neelsen, Decolorizer	8oz, 16oz, 1 Gallon
6330	AFB Ziehl-Neelsen, Methylene Blue	8oz, 16oz

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