

STANTON TERRITORIAL HEALTH AUTHORITY

Yellowknife, Northwest Territories

TITLE: Kinyoun Stain	Revision Date: 07-April-2017	Issue Date: 07-April-2015
Document Number: MIC81600	Status: Approved	
Distribution: Mycobacteria Manual	Page: 1 of 4	
Approved by: Gloria Badari, Director, Corporate Services and Chief Financial Officer	Signed by: (Original Signed Copy in Microbiology)	

PURPOSE:

To standardize the staining of Mycobacteria smears using the Kinyoun stain kit. The Kinyoun stain is a “cold” ZN method; fixing smears does not require heat.

SPECIAL SAFETY PRECAUTIONS:

- Handle all patient samples and testing reagent using “Routine Practices”
- Please refer to the Northwest Territories Infection Prevention and Control Manual, March 2012
- Prior to testing all patient are to be identified as per I-0500 Use of Two Patient Identifiers.

REAGENTS and/or MEDIA:

Stain	Information
Stains for direct or culture smears:	
Kinyoun (cold) method (for direct smear confirmation)	<ul style="list-style-type: none">• Suppler: BD• Storage: Room Temperature• Kit contains: Carbofuchsin KF, Decolorizer, Brilliant Green K

KINYOUN STAIN:

SUPPLIES:

- White slide rack
- 4x 4 gauze
- Dedicated TB timer
- Alcohol wipes
- TB Stain Kit K, use before expiration date.

NOTE: This is a CONTROLLED document for internal use only. Any documents appearing in paper form are not controlled and should be checked against electronic version prior to use.

FILENAME: MIC81600KinyounStainPRO.doc

PRINT DATE: 9 March 2015

TITLE: Kinyoun Stain	Revision Date: 07-April-2017	Issue Date: 07-April-2015
Document Number: MIC81600	Status: Approved	
Distribution: Mycobacteria Manual	Page: 2 of 4	

Step	Action
Follow the steps below to stain the direct smear with Kinyoun Stain:	
1	It is acceptable to stain with Kinyoun directly over the A/R stain. If you choose to do this, proceed to Step 3 below.
2	If preparing a new smear for staining: <ul style="list-style-type: none"> Refer to document: MIC80800 Mycobacteria Media Inoculation & Direct Smear Preparation
3	Completely flood all smears with Carbol-fuchsin. Leave for 4 minutes
4	Using gentle water pressure, rinse slides in running water. Continue to rinse slides until all stain is removed; this may take several rinses.
5	Decolorize smears one-by-one. <i>Do not batch decolorize.</i> <ul style="list-style-type: none"> Smears are more sensitive to over-decolorization in the Kinyoun stain compared to the A-R stain. Flood one smear with Decolourizer. <ul style="list-style-type: none"> Leave on for 3→ 5 seconds. Using gentle water pressure, rinse slide in running water. Repeat for all smears.
6	Completely flood all smears at the same time with Brilliant Green. Leave for 30 seconds
7	Using gentle water pressure, rinse slides in running water.
8	Place slides in a white slide holder lined with gauze to drip dry. <ul style="list-style-type: none"> Place slides in the O2 incubator to speed up drying. Unlike A/R stained slides, Kinyoun Smears do not need to be kept in the dark.
Expected Results:	
Acid Fast Bacilli	fuchsia/ red bacilli, beading may be seen
Background	pale blue/green

NOTE: This is a CONTROLLED document for internal use only. Any documents appearing in paper form are not controlled and should be checked against electronic version prior to use.	
FILENAME: MIC81600KinyounStainPRO.doc	PRINT DATE: 9 March 2015

TITLE: Kinyoun Stain	Revision Date: 07-April-2017	Issue Date: 07-April-2015
Document Number: MIC81600	Status: Approved	
Distribution: Mycobacteria Manual	Page: 3 of 4	

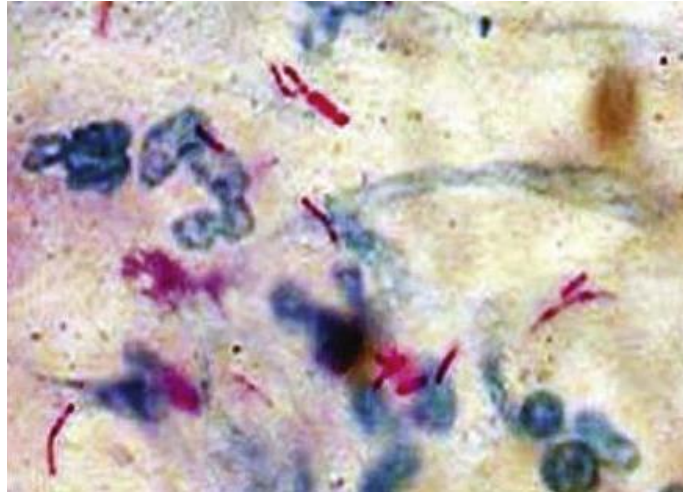


Image 1 (above): AFB seen in Kinyoun smear.

Source; <http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/infectious-disease/tuberculosis/>

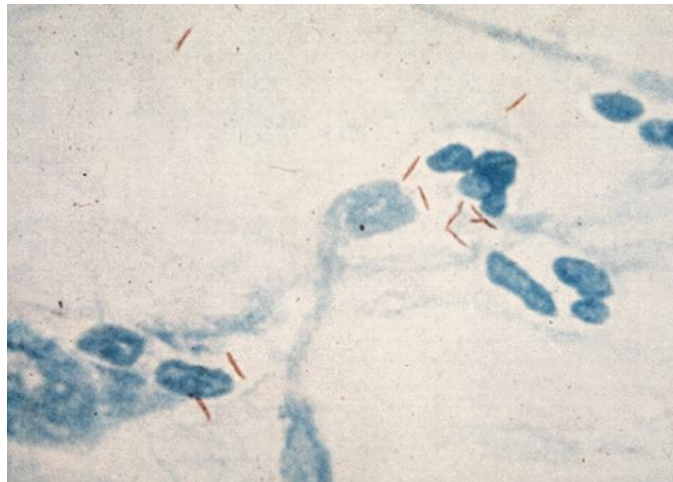


Image 2 (above): AFB seen in Kinyoun smear

Source: <http://itg.content-e.eu/Generated/pubx/173/tuberculosis/diagnosis.htm>

NOTE: This is a CONTROLLED document for internal use only. Any documents appearing in paper form are not controlled and should be checked against electronic version prior to use.	
FILENAME: MIC81600KinyounStainPRO.doc	PRINT DATE: 9 March 2015

TITLE: Kinyoun Stain	Revision Date: 07-April-2017	Issue Date: 07-April-2015
Document Number: MIC81600	Status: Approved	
Distribution: Mycobacteria Manual	Page: 4 of 4	

RELATED DOCUMENTS:

- MIC80800 Mycobacteria Media Inoculation & Direct Smear Preparation
- MIC81300 AFB Stain QC & Slide Prep

REFERENCES:

- Beckton Dickenson. (2014, August). TB Stain Kits and Reagents. *Product Insert*. United States: Beckton Dickenson.

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	31Jan15	Initial Release	L. Driedger
	03Feb2015	Review	S. Webber