


CARBOL FUCHSIN (Cold and Hot Ziehl- Neelsen Stain)

IVD For in -vitro diagnostic use only

 Store at Room Temperature

Intended For Use

Atlas Ziehl- Neelsen Stain (ZN Stain) is a special bacteriological stain used to identify acid-fast organisms, mainly Mycobacteria. Mycobacterium tuberculosis is the most important of this group because it is responsible for tuberculosis (TB).

Introduction

The Ziehl–Neelsen stain, also known as the acid-fast stain, was first described by two German doctors: the bacteriologist Franz Ziehl (1859–1926) and the pathologist Friedrich Neelsen (1854–1898).

Acid fast organisms like Mycobacterium contain large amounts of lipid substances within their cell walls called mycolic acids. These acids resist staining by ordinary methods such as a Gram stain.[1] It can also be used to stain a few other bacteria, such as *Nocardia*. The reagents used are Ziehl–Neelsen carbol fuchsin, acid alcohol, and methylene blue. Acid-fast bacilli will be bright red after staining.

Materials Provided

- Carbol Fuchsin ZN

Contents required but not Provided

- Decolouriser
- Methylene Blue for Cold Ziehl- Neelsen Stain
- Malachite Green for Hot Ziehl- Neelsen Stain

Notes: Ready To Use Solutions.

PROCEDURE

1. A) For cold method: Flood the fixed smears with Carbol Fuchsin and stain for 2 minutes without heating.
B) For Hot method: Flood the heat fixed smears with Carbol Fuchsin and steam gently for 5 minutes without heating. Add more stain if necessary to prevent drying.
2. Wash with tap water and decolourise with acid-alcohol until the dye no longer runs off the slide.
3. Wash with tap water and counter stain for 10-30 seconds with Methylene Blue.
4. Wash, blot dry and examine.

Results












Acid fast organisms stain red, the background and other organisms stain blue or blue-green.

Referances

1. Morello, Josephine A., Paul A. Granato, Marion E. Wilson, and Verna Morton. Laboratory Manual and Workbook in Microbiology: Applications to Patient Care. 10th ed. Boston: McGraw-Hill Higher Education, 2006. Print.
2. Jump up^ Romagnesi, H. (1967). Les Russules d'Europe et d'Afrique du Nord. Bordas. ISBN 0-934454-87-6.
3. Jump up^ Largent, D; D Johnson; R Watling (1977). How to identify fungi to genus III: microscopic features. Mad River Press. ISBN 0-916422-09-7. p 25.
4. Jump up^ Ellis, RC; LA Zabrowarny. (1993). "Safer staining method for acid fast bacilli" (PDF). Journal of Clinical Pathology 46: 559–560. doi:10.1136/jcp.46.6.559. PMC 501296. PMID 7687254.



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	Product Reference No.		For in-vitro diagnostic use.
	Caution.		Store at
	Read product insert before use.		Number of tests in the pack.
	Lot (batch) number.		Manufacturer.
	Expiry date.		Manufacturer telephone number.
	Manufacturer fax number.		