

Mycobacteria – 20/12/2011

Why do we use acid-fast (Ziehl–Neelsen stain) stain for mycobacteria?

- Because mycobacteria have an unusual waxy coat with high content of mycolic acid (a type of lipid)

How do bacilli appear in Ziehl–Neelsen?

- They appear as red bacilli on a blue background.

What type of agar is used to enhance the growth of mycobacterium?

- Lowenstein-Jensen agar

Colony morphology: buffy appearance

Ziehl–Neelsen kit consists of:

- Carbol-fuchsin
- Acid alcohol
- Methylene blue

Tuberculosis categories:

- Pulmonary
- Extrapulmonary (except CNS), e.g. peritoneal tuberculosis
- CNS, e.g. TB meningitis, TB cerebritis, TB myelitis

Procedure of acid-fast staining:

- Application of carbolfuchsin and heating till steam is formed.
- Application of acid alcohol for 30 seconds.
- Application of methylene blue for 45 seconds.