

1. What is differential staining?

A **simple stain** will generally make all of the organisms in a sample appear to be the same color, even if the sample contains more than one type of organism. In contrast, **differential staining** distinguishes organisms based on their interactions with multiple **stains**.

2. What is meant by differential staining?

From Wikipedia, the free encyclopedia. **Differential Staining** is a **staining** process which uses more than one chemical **stain**. Using multiple **stains** can better differentiate between different microorganisms or structures/cellular components of a single organism.

3. What does acid fast meaning?

Acid-fast bacteria, also known as **acid-fast** bacilli or simply AFB, is a group of bacteria sharing the characteristic of **acid** fastness. ... This **means** that once the bacterium is stained, it cannot be decolorized using **acids** routinely used in the process.

4. Why it is called acid fast staining?

Acidfast Stain: Background and Introduction. Mycobacterium and many Nocardia species are **called acid-fast** because during an **acid-fast staining** procedure they retain the primary dye carbol fuchsin despite decolorization with the powerful solvent **acid-alcohol**. Nearly all other genera of bacteria are nonacid-fast.

5. What is the difference between Gram stain and acid fast stain?

The main **difference between Gram stain and acid fast stain** is that **Gram stain** helps to **distinguish** bacteria with different types of cell walls whereas **acid-fast stain** helps to **distinguish Gram-positive** bacteria with waxy mycolic **acids** in their cell walls.

6. What diseases are caused by acid fast bacteria?

TUBERCULOSIS, LEPROSY AND OTHER DISEASES CAUSED BY ACID-FAST BACTERIA.

7. Is acid fast positive or negative?

Acid-fast bacteria are gram-**positive**, but in addition to peptidoglycan, the outer membrane or envelope of the **acid-fast** cell wall contains large amounts of glycolipids, especially mycolic acids that in the genus *Mycobacterium*, make up approximately 60% of the **acid-fast** cell wall.

8. Examples of acid and basic dye for staining of bacteria.

Acid fuchsin, eosin, and picric **acid** are **examples**. **Basic stains (dyes)** are **basic** in nature because they possess positive (cationic) charge on their surface on ionization. Fast green, aniline blue, methylene blue, crystal violet, safranin, etc. are **examples**.

9. What is an example of an acid stain?

Acid dyes **stain** acidophilic structures (e.g. cytoplasm, basic tissue proteins). **Examples** of **acid** dyes are Indian ink, congo red, nigrosine

10. What are acidic and basic dyes?

According to nature of stain, it can be classified into: 1. **Acidic Dyes**: It is **dye** which has negative charge so they bind to positively charged cell structures like some proteins. ... **Basic Dyes**: This **dye** have positive charge & bind to negatively charged molecules (nucleic **acid**, -COOH -OH).

11. What chemical is used to stain the bacteria?

Iodine - used as a starch indicator. When in solution, starch and **iodine** turn a dark blue color. Malachite green - a blue-green counterstain to **safranin** in Gimenez staining for bacteria. This stain can also be used to stain spores.

12. Is Eosin basic or acidic dye? Eosin is an **acidic** dye: it is negatively charged (general formula for **acidic** dyes is: Na^+dye^-). It stains **basic** (or acidophilic) structures red or pink. This is also sometimes termed 'eosinophilic'. Thus the cytoplasm is stained pink in the picture below, by H&E staining.

All are from Wikipedia.

