PEP (SPOT INDOLE) REAGENT

DISCUSSION:

The mechanism by which indole is formed in bacterial cultures involves the oxidation of one molecule of tryptophane to one molecule of indole, with the production of one mole each of ammonia and pyruvic acid. This process is accompanied by the uptake of 5 moles of O2 which are used in the ensuing process brought about by the enzyme known as tryptophanase acting at neutral or slightly alkaline pH. This explains why indole usually is not produced in media containing fermentable carbohydrates. The color test for indole is a simple coupling of one aromatic nucleus to another to give a colored product.(1) KEY PEP reagent is a spot indole test suitable for use in any classic indole procedure. This test is suitable for detecting tryptophane, skatol, and other derivatives of pyrrole. The sensitivity of the test is in the range of 0.04 mcg of pyrrole, 0.06 mcg of indole, and 0.1 mcg of tryptophane.

STORAGE:

Refrigerate, tightly covered.

MSDS:

PEP reagent contains p-dimethyl-amino-cinnamaldehyde in weak hydrochloric acid.. Hydrochloric acid is harmful if inhaled, ingested, or absorbed through the skin. It may cause burns or severe irritation. In case of contact, immediately flood the skin and/or eyes with water. PEP reagent will leave stains on skin or clothing. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

INSTRUCTIONS:

Spot indole can be performed from any media containing tryptophane, such as blood agar or TSA.

Spot indole: Smear a colony of the organism onto a piece of filter paper or pick up a colony with a swab. Add one drop of reagent to the colony and observe for the development of a green to blue color.

Aminopeptidase: Follow the directions given in the aminopeptidase test being done.

REFERENCES:

1) Workshop Manual, 1994. "Identification of Medically Important Gram Positive Bacteria", Texas Dept of Health, Austin, Tx.
2) 1985 Manual of Clinical Microbiology, 4th Ed., ASM, Washington,D.C. 0106jp

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