

KOVÁCS' Indole Reagent

Reagent proposed bei KOVÁCS (1928) for detecting microbial indole in the identification of indole-positive and indole-negative microorganisms.

Mode of Action

Some microorganisms can cleave tryptophan which is especially abundant in trypticallé digested peptone to give pyruvic acid, ammonia and indole. Indole then reacts with 4-dimethylaminobenzaldehyde to form a dark red dye. As tryptophan also gives a colour reaction with 4-dimethylaminobenzaldehyde, it must be separated from the indole. This is achieved by selectively extracting indole with butanol.

Typical Composition

n-Butanol; hydrochloric acid; 4-dimethylaminobenzaldehyde.

Experimental Procedure and Evaluation

The strain purity of the organism to be tested must first be established; it is then inoculated into an appropriate culture medium (e.g. Standard II Nutrient Broth (Merck, Cat. No. 1.07884.), Nitrate Broth (Merck, Cat. No. 1.10204.), DEV Tryptophan Broth (Merck, Cat. No. 1.10694.), SIM Medium (Merck, Cat. No. 1.05470.), etc.) and incubated for 18-24hours at the optimal incubation temperature. The medium is then covered with a layer of KOVÁCS' indole reagent of about 0.5cm. If indole is present the reagent layer turns cherry red in colour after a few minutes.

- **The reagent solution must be stored in the dark in the refrigerator, otherwise it may turn brown and cannot be used.**

Literature

KOVÁCS, N.: Eine vereinfachte Methode zum Nachweis der Indolbildung durch Bakterien. - **Z. Immunitätsforsch.**, 55; 311-315 (1928).

Ordering Information

Product	Merck Cat. No.	Pack size
KOVÁCS' Indole Reagent	1.09293.0100	100 ml