

Kovac's (Indole) Reagent (iR95008)

For determination of the ability of microorganisms, primarily *Enterobacteriaceae*, to split indole (benzopyrrole) from the tryptophan molecule by tryptophanases.

Industry: Food / Water

Description

Kovac's Reagent is employed for detecting microbial indole production, primarily by *Enterobacteriaceae*. Microorganisms like *Escherichia coli* with tryptophanase enzyme cleave tryptophan into indole and α -aminopropionic acid. This indole test is vital in identifying microorganisms, especially *Escherichia coli*, as positive reactions result in a pink-red color. Media without glucose and peptone rich in tryptophan content are recommended for accurate testing.

Composition

4-(Dimethylamino) benzaldehyde	0.5 g
Butanol	7.5 ml
HCl (concentrated)	2.5 ml

Directions

Add 0.2-0.5 ml of Kovac's Reagent to 5 ml of a 24-48 hours' bacterial culture, such as one inoculated in Tryptone Water. To reduce the incubation time to 4 hours, use a smaller volume of cell material, e.g., 0.5 ml. Gentle shaking facilitates the extraction process.

Quality Control

Appearance	Yellow solution
Clarity	Clear solution without any particles
<i>Enterobacter aerogenes</i> (13048)	Negative (no red ring)
<i>Escherichia coli</i> (25922)	Positive (red ring at the interface of the medium)

Storage

Store in a light-protected environment at 4-8°C.