



KOVAC'S Reagent

Reagent for indole test of *Enterobacteriaceae*

ENGLISH

DESCRIPTION

KOVAC'S Reagent is the classic reagent for the indole test performance of *Enterobacteriaceae* on culture broth or in agar on medium containing tryptophan or prepared with peptones rich in tryptophan.

CONTENTS OF THE PACKAGES

Each package contains:

- 2 or 4 bottles containing 25 mL of reagent
- 1 instruction sheet

NECESSARY PRODUCTS NOT INCLUDED IN THE PACKAGE

- PEPTONE WATER (code 20098 or 402130 or 610038) or other suitable medium
- Various material for laboratory of microbiology

PRINCIPLE OF THE METHOD

The indole is one of products from the aminoacid tryptophan metabolic degradation. The bacteria that own the enzyme tryptophanase are able to hydrolyze and deaminate the tryptophan with the production of indole, pyruvic acid and ammonia.

The indole test is based on the formation of a red-purple colour complex, due to the indole reaction with aldehydic group of *p*-dimethylaminobenzaldehyde.

COMPOSITION

Content / 100 mL	
<i>p</i> -dimethylaminobenzaldehyde	5 g
Amylic alcohol	75 mL
Chloridric acid, conc.	25 mL

TEST PROCEDURE

Take 2 or 3 drops of reagent by pipette, add them to a culture broth in PEPTONE WATER (code 20098 or 402130 or 610038) of 24-48 hours of the microorganism under examination and shake gently.

The Kovac's reagent can be also used for the rapid test in plate, by the addition of some drops of reagent to colonies grown on solid medium, rich in tryptophan and without lactose and by observing the colour change of the liquid; alternatively smear some colonies grown on a medium with similar characteristics, on filter paper and add one drop of reagent.

INTERPRETATION OF RESULTS

The almost immediate development of a red-pourple colouring indicates the positivity to indole test.

QUALITY CONTROL FOR THE USER

1. Appearance control: limpid and clear solution.
2. Microbiological control.

Control strains		Indole test	
<i>Escherichia coli</i>	ATCC 25922	Red-pourple	Positive
<i>Proteus mirabilis</i>	ATCC 25933	Colourless	Negative

PRECAUTIONS

The product KOVAC'S Reagent is classifiable as hazardous under current legislation; It is recommended that the Safety Data Sheet be consulted on its use. KOVAC'S Reagent must be used only for *in vitro* diagnostic use. It is intended for use in a professional environment and must be used in the laboratory by properly trained personnel, using approved asepsis and safety methods for handling pathogenic agents.

ELIMINATING USED MATERIAL

After use, used KOVAC'S Reagent and the material that has come into contact with the sample must be decontaminated and disposed of in accordance with the laboratory procedures for the decontamination and disposal of potentially infected material.

STORAGE

Store KOVAC'S Reagent at 2-8 °C, in its original package. In such conditions the product KOVAC'S Reagent is valid until the expiry date shown on the label. Do not use them beyond that date. Dispose of them if they show signs of deterioration.

BIBLIOGRAPHY

- Murray, Baron, Pfaller, Tenorev and Tencken: *Manual of Clinical Microbiology* (1995).
- Bayley and Scott's: *Diagnostic Microbiology* (1986).
- Edwin H. Lennette: *Manual of Clinical Microbiology* (1995).

PRESENTATION

Product	REF	Σ
KOVAC'S Reagent	80270	2 bottles of 25 mL
	80271	4 bottles of 25 mL

TABLE OF SYMBOLS

IVD In Vitro Diagnostic Medical Device	Do not reuse	Manufacturer	Contains sufficient for <n> tests	Temperature limitation
REF Catalogue number	Fragile, handle with care	Use by	Caution, consult accompanying documents	LOT Batch code



LIOFILCHEM Bacteriology Products

Via Scozia Zona Ind.le - 64026 Roseto D.A. (TE) - Italy

Tel. +390858930745 Fax +390858930330 Website: www.liofilchem.net E-Mail: liofilchem@liofilchem.net



F00025
Rev.0 / 12.09.2005

KOVAC'S REAGENTAS

Reagentas enterobakterijų indolo testui atlikti

Kodas: 80270
80271

2x 25 ml
4x 25 ml

Metodo esmė:

Kovac's reagentas yra klasikinis reagentas nustatyti enterobakterijoms, išaugintoms sultinyje ar ant agaro, turinčiuose daug triptofano. Indolas yra vienas iš aminorūgšties triptofano medžiagų apykaitos skilimo produktų. Bakterijos, turinčios fermentą triptofanazę, gali hidrolizuoti ir deaminizuoti triptofaną, ko pasekoje gaminasi indolas, piruvato rūgštis ir amoniakas.

Indolo testas pagrįstas raudonai violetinės spalvos atsiradimu dėl indolo reakcijos su p-dimetilaminobenzoaldehidu.

Formulė:

p- dimetilaminobenzoaldehidas	1,25 g
Amilo alkoholis	18,75 ml
Koncentruota druskos rūgštis	6,25 ml

Panaudojimas:

Užlašiname 2-3 lašus reagento ant tiriamos kultūros, išaugintos peptono vandens sultinyje (po inkubavimo 24-48 val. 36±1 °C temperatūroje). Švelniai pakratome. Spalvos pasikeitimas į raudonai violetinę parodo teigiamą indolo testą.

Kovac's reagentas gali būti naudojamas ir greitam testui nustatyti iš kolonijų, augančių ant kietos terpės, turtingos triptofano. Testą dar galima atlikti tiriamos kultūros užnešant ant filtrinio popieriaus ir užlašinant 1 lašą reagento.

Kokybės kontrolė:

1. Vizualiai: permatomas skaidrus skystis.
2. Mikrobiologinė kontrolė:

Kontrolinė kultūra		Indolo testo įvertinimas	
Escherichia coli	ATCC 25922	Raudonai violetinė spalva	Teigiamas
Proteus mirabilis	ATCC 25933	Bespalvė	Neigiamas

Laikymo sąlygos: 2-8 °C