

KOVAC'S INDOLE REAGENT

PRODUCT CODE 854500

Intended Use

Kovacs' Indole Reagent is used for detection of presence of indole produced by microorganisms due to tryptophan deamination.

Principle And Interpretation

Peptone Water is particularly suitable as a substrate in the study of indole production. Peptone used in Peptone Water, is rich in tryptophan content. Other peptones which contain tryptophan can be used to study indole production. Tryptone Water is also recommended by APHA for detection of indole production by coliforms, which is a key feature in differentiation of bacteria. It is used as part of the IMVIC procedures. Most strains of *E. coli*, *P. vulgaris*, *P. rettgeri*, *M. morgani* and *Providencia* species break down the amino acid tryptophan with the release of indole. The presence of indole can be detected by the addition of Ehrlich's or Kovac's reagent (p-dimethylaminobenzaldehyde). Kovacs reagent is a biochemical reagent consisting of isoamyl alcohol, para-dimethylaminobenzaldehyde (DMAB), and concentrated hydrochloric acid. It is used for the diagnostic test, to determine the ability of the organism to split tryptophan into indole and alpha-aminopropionic acid by hydrolytic activity of bacteria that express tryptophanase enzyme. The indole produced is indicated by formation of a red coloured ring, soluble in ether, chloroform and alcohol. This was invented by the Hungarian-Swiss Chemist, Ervin Kovacs. Indole production is used as, a test designed to distinguish among members of the family Enterobacteria.

PARAMETER

Description Yellow to light brown coloured clear soln.
Suitability test (Suitability for detection of indole) Passes test.

Directions

1. Take 5 ml of a 24 - 48 hours old culture of the organism under investigation.
2. Add 0.2 - 0.3 ml of Kovac's reagent.
3. Observed for a red coloured ring which indicates positive indole test.

**Note(s) :1] Assay (if applicable) method mentioned.
2] Storage : 0-8°C**

DANGER

Hazard statement : May be fatal if swallowed and enters airways. May cause drowsiness and dizziness. Highly flammable liquid and vapour. Fatal if inhaled. Harmful if swallowed. May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary statements

Prevention: Wear protective gloves/clothing and eye/face protection. Do not breathe dust or mist. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well ventilated area. Do not breathe dust/fume/gas/mist/vapours/spray. Wear respiratory protection.. Keep container tightly closed. Keep away from heat/sparks/open flame. Use explosion-proof electrical/ventilating/ lighting/equipment

Response: IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: Rinse mouth.. Immediately call a POISON CENTER or doctor/physician. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse. In case of fire, use alcohol-type foam for extinction. Absorb spillage to prevent material damage. If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.

Disposal: Dispose of contents and container in accordance with relevant legislation.

IMDG Code : 8/11
UN No. : 2920
IATA : 8

Hazard Pictogram(s) :



GHS02



GHS05



GHS06



GHS08

Replace date 22-Dec-2023