



## DMACA Reagent

**R035**

### Intended use

DMACA Reagent is used as a histological dye to detect indole from Tryptophan.

### Composition\*\*

#### Ingredients

p-Dimethylaminocinnamaldehyde	1.0 gm
Hydrochloric acid (concentrated)	1.0 ml
Distilled water	99.0 ml

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

1. With a platinum wire loop, plastic loop or glass rod, transfer suspected colony from HiCrome UTI HiVeg™ Agar (MV1353) or HiCrome UTI HiVeg™ Agar, Modified (MV1418) on filter paper which is dipped in DMACA Reagent (R035).
2. Observe for appearance of blue-purple colour within 10-30 seconds

### Principle And Interpretation

DMACA reagent is used to determine the ability of an organism to split indole from the tryptophan molecule. In the presence of oxygen, some bacteria are able to split tryptophan into indole and alpha-aminopropionic acid. The presence of indole can be detected by the addition of DMACA (p - Dimethylaminocinnamaldehyde) reagent indicated by formation of blue-purple colour.

### Type of specimen

The specimen is any isolated colony on primary or subculture plates.

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines.

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines.

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards, After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/ protective clothing/ eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

## Limitations

1. The tube test is a more sensitive method of detecting indole than the spot test.
2. Media containing glucose should not be used for indole testing due to the formation of acid end products which have been shown to reduce indole production.
3. Indole-positive colonies have been reported to cause adjacent indole-negative colonies to appear false-positive due to diffusion of indole into the media. To avoid false-positives, select colonies of different morphologies that are separated by at least 5mm for indole testing.

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

## Quality Control

- **Appearance** : Yellow to brown coloured solution.
- **Clarity** : Clear to slightly hazy solution.

## Cultural Response

Organism	Growth	DMACA
<b>Cultural Response</b>	Biochemical identification is carried out by transferring suspected colony from HiCrome UTI Agar (M1353) or HiCrome UTI Agar, Modified (M1418) plate on filter paper and adding 1-2 drops of DMACA Reagent (R035).	
<i>Escherichia coli</i> ATCC 25922 (WDCM 00013)	Luxuriant	Positive (blue-purple colouration around colony)
<i>Pseudomonas aeruginosa</i> ATCC 27853 (WDCM 00025)	Luxuriant	Negative (No colour change around colony)

## Storage and Shelf Life

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques

## Reference

1. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Williams and Wilkins, Baltimore.
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3. Li, Y. G.; Tanner, G.; Larkin, P. (1996). "TheDMACA-HCl Protocol and the Threshold Proanthocyanidin Content for Bloat Safety in Forage Legumes". *Journal of the Science of Food and Agriculture* 70: 89–101.
4. A new colorimetric assay for flavonoids in pilsner beers. Jan A. Delcour and Didier Janssens de Varebeke, *Journal of the Institute of Brewing*, January–February 1985, Volume 91, Issue 1, pages 37–40.
5. Meudt, W. J.; Gaines, T. P. (1967). "Studies on the Oxidation of Indole-3-Acetic Acid by Peroxidase Enzymes. I. Colorimetric Determination of Indole-3-Acetic Acid Oxidation Products". *Plant Physiology* 42 (10): 1395–9.
6. Isenberg, H.D. *Clinical Microbiology Procedures Handbook*, Vol. I, II, & III. American Society for Microbiology, Washington, D.C.



Storage temperature



Do not use if package is damaged



In vitro diagnostic medical device



CE Marking



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