



## Iodine Solution

**R044**

### Intended use

Iodine Solution is an analytical reagent for detecting starch hydrolysis.

### Composition\*\*

#### Ingredients

Iodine	0.34 gm
Potassium iodide	0.66 gm
Distilled water	100.0 ml

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

### Directions

1. Add 1-2 drops of Iodine Solution (R044) to the colony (24-48 hours old) grown on Starch agar (M107) or in a –amylase well of KB006.
2. Observe for colourless zone against blue background.

### Principle And Interpretation

Iodine Solution is used as a reagent for starch detection in routine laboratory and medical tests. These uses are possible since the solution is a source of effectively free elemental iodine, which is readily generated from the equilibration between elemental iodine molecules and triiodide ion in the solution. The presence of starches in organic compounds with which it reacts is indicated by turning a dark-blue/black colour.

### Type of specimen

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

### Specimen Collection and Handling

1. For clinical samples follow appropriate techniques for handling specimens as per established guidelines.
2. For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines.
3. 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. This test is a qualitative test and doesn't signify the concentration of starch.

2. This test can not be performed under acidic conditions as the starch hydrolyses under such circumstances.

## 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** : Brown coloured liquid.
- **Clarity** : Clear without any precipitate.

## Cultural Response

Organism	Starch hydrolysis
<b>Cultural Response</b>	Biochemical identification was carried out by adding Iodine Solution (R044) in 24-48 hours old culture grown on starch agar (M107)
<i>Escherichia coli</i> ATCC 25922 (WDCM 00013)	Negative (Blue colour formation)
<i>Bacillus subtilis</i> subsp. <i>Spizizenii</i> ATCC 6633 (WDCM 00003)	Positive (Colourless zone around growth)

## 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

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Storage temperature



Do not use if package is damaged



In vitro diagnostic medical device



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