



MIO

Motility-Indole-Ornithine

Purpose: Differentiation of Enterobacteriaceae
For in vitro diagnostic use

Cat No. TT143

Inoculation:

1. Growth from 18-24 hours pure culture.
2. With inoculating needle, single stab to within 1/4 inch from bottom of tube.
3. Cap the tubes loosely with Indole reaction lignine caps or ligninine caps.

Incubation: Aerobically, caps loosened, at 35-37°C, 18-24 hour.

Interpretation:

1. Motility

- a. (+) Growth diffusing outward from stab line of inoculation.
- b. (-) Growth restricted to just along stab line.

2. Indole

When the test is performed by using regular lignine caps, add 3-4 drops of Kovacs Indole Reagent to each tube.

- a. (+) Pink violet color on the cap's bottom, or red color in upper layer of medium if reagent is added.
- b. (-) Strip or cap remain without changes. No change color in upper layer of medium if reagent is added.

3. Ornithine

- a. (+) Deepening of purple color.
 - (i) Deepening of purple color throughout tube.
 - (ii) Purple color on upper layer (decarboxilation of ornithine to putrecine and gray-purple lower layer).
 - (iii) Yellow with purple top band (yellow color due to glucose fermentation (acid pH); glucose depleted and ornithine decarboxilation producing alkalinity).
- b. (-) Two possible color results
 - (i) Yellow color throughout tube indicating ONLY glucose fermented.
 - (ii) No change, medium remains same color as uninoculated; neither glucose utilized nor ornithine decarboxilated.

3. Motility

- i. (+) Growth diffusing outward from stab line of inoculation.
- ii. (-) Growth restricted to just along stab line

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