

05386 Ornithine Decarboxylase Broth

Ornithine Decarboxylase Broth is recommended for the detection of the ability of microorganisms to decarboxylate ornithine. It is recommended by the ISO Committee under the specification ISO 10273:1994.

Composition:

Ingredients	Grams/Litre
L-Ornithine Monohydrochloride	5.0
Yeast Extract	3.0
Glucose	1.0
Bromo Cresol Purple	0.015
Final pH 6.8 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.

Appearance: Yellow colored, homogeneous, free flowing powder.

Color and Clarity: Dark purple colored, clear solution without any precipitate.

Directions:

Suspend 9 g of Ornithine Decarboxylase Broth in 1000 ml of distilled water. Heat if necessary to dissolve the medium completely. Dispense in test tubes and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes.

Principle and Interpretation:

In the initial stages of incubation, glucose is fermented by the organisms with acid production. This results in a color change in the Bromo Cresol Purple pH indicator to yellow. Further if ornithine is decarboxylated there will be an alkaline reaction.

Cultural characteristics after 24 hours at 35°C.

Organisms (ATCC)	Ornithine Decarboxylation
<i>Yersinia enterocolitica</i> (27729)	+
<i>Escherichia coli</i> (25922)	□
<i>Proteus vulgaris</i> (13315)	+
<i>Proteus mirabilis</i> (25933)	-
<i>Enterobacter aerogenes</i> (13048)	+
<i>Klebsiella pneumoniae</i> (13883)	-
<i>Salmonella typhi</i> (6539)	-
<i>Salmonella paratyphi A</i>	+
<i>Shigella sonnei</i> (25931)	+
<i>Shigella flexneri</i> (12022)	-

Key: + = purple color of the medium

- = yellow color of the medium

□□ = variable

References:

1. Taylor, W.I., (1961). *Appl. Microbiol.* 9, 487.
2. International Organisation for Standardization (ISO), Draft ISO/DIS 10273 (1994)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

