



Craig's Medium

M974

Craigs Medium is recommended for cultivation of *Vibrio cholerae* while testing their enterotoxigenicity.

Composition**

| Ingredients | Gms / Litre |
|-------------------------|-------------|
| Casein acid hydrolysate | 30.000 |
| Yeast extract | 4.000 |
| Dipotassium phosphate | 0.500 |
| Final pH (at 25°C) | 7.2±0.2 |

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 34.5 grams in 1000 ml distilled water. Heat if necessary to ensure complete solution. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to room temperature. Aseptically add 2 ml of filter sterilized 20% glucose solution per 100 ml. Mix well.

Principle And Interpretation

Vibrio cholerae is a gram-negative bacterium that causes cholera in humans. Cholera is the prototype of diarrheal syndromes in which the disease is caused through the production of toxins that interrupt normal intra-intestinal exchange of water and electrolytes. A variety of laboratory diagnosis of cholera and toxin detection have been developed.

Craigs Medium has similar composition to that of CAYE Broth, which was formulated as per APHA (1) for cultivating *V. cholerae* while testing their enteropathogenicity.

For testing the enterotoxin production of *V. cholerae*, the culture is to be grown in Craigs Medium as this medium enhances the production of *Vibrio* enterotoxin. Medium contents like casein acid hydrolysate and yeast extract provide the essential nitrogenous nutrients and B-complex vitamins to the growing *Vibrios*. Dipotassium phosphate helps in maintaining buffering conditions in the medium. Glucose is the energy source.

Inoculate test cultures from TN Agar (M950) slants to tubes of Craigs Medium and incubate overnight at $30 \pm 2^\circ\text{C}$ which is then further used for immunological testing of enterotoxigenicity.

Quality Control

Appearance

Light yellow to beige homogeneous free flowing powder

Colour and Clarity of prepared medium

Amber coloured, clear solution without any precipitate

Reaction

Reaction of 3.45% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH

7.00-7.40

Cultural Response

M974: Cultural characteristics observed after an incubation at 25-30°C for 18-24 hours.

| Organism | Inoculum (CFU) | Growth |
|-----------------------------------|----------------|----------------|
| <i>Vibrio cholerae</i> ATCC 15748 | 50-100 | good-luxuriant |

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label

Reference

1. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.

Revision : 2 / 2015

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.