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**Campylobacter Agar Base**

Recommended for selective isolation of Campylobacter species from faecal specimens, food and environmental specimens.

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| --- | --- |
| REF: V.1/CMP01.100 100 Gram  REF: V.1/CMP01.500 500 Gram | REF: V.1/CMP01.250 250 Gram |

**CLINICAL SIGNIFICANCE**

Campylobacter species are ubiquitous in the environment inhabiting a wide variety of ecological niches (1). Infection with a Campylobacter species is one of the most common causes of human bacterial gastroenteritis (1). Most species are found in animals (cattle, swine) and cause infertility and abortion (2). C .jejuni was originally isolated on a blood-containing media with antibiotics (3). Skirrow described a selective medium for Campylobacter species consisting of Blood Agar Base No. 2 supplemented with horse blood and antibiotics (4). Subsequently, Blaser et al isolated C.jejuni on Brucella Agar supplemented with sheep blood and four antibiotics (5). Later on, a fifth antibiotic, cephalothin was added to improve the selectivity of the medium by inhibition of accompanying faecal bacteria (6). Campylobacter Agar Base is recommended by APHA for selective isolation of Campylobacter species (7).

**METHOD PRINCIPLE**

Campylobacter Agar Base is well supplemented to support luxuriant growth of Campylobacter species. Osmotic equilibrium of the medium is maintained by sodium chloride. Blood serves as an additional source of nutrients including X factor. The antibiotic supplements namely Blaser-Wang and Skirrow markedly reduce the growth of normal enteric bacteria while enhancing the growth and recovery of C.jejuni from faecal specimens. Amphotericin B in Blaser-Wang supplement greatly or completely inhibits growth of fungi. C.jejuni colonies appear non-haemolytic, flat and gray with an irregular edge or raised and round with a mucoid appearance. Some strains may appear tan or slightly pink. Swarming may be observed on moist surfaces. Incubation at 35-37°C may show a delayed growth of C.jejuni cultures. Incubating the plates at 42°C can fasten this.

The contaminated food sample (10 to 25 grams) is enriched in Campylobacter Enrichment Broth Base. The broth is incubated with agitation under a micro aerobic atmosphere for 16-18 hrs. The enrichment culture is then plated onto the selective media i.e. Campylobacter Agar Base (7).

**MEDIA COMPOSITION**

|  |  |
| --- | --- |
| Item | Formula per liter  of medium |
| Proteose peptone  Liver digest  Yeast extract  Sodium chloride  Agar | 15.00 gm  2.500 gm  5.000 gm  5.000 gm  12.00 gm |

***Final pH 7.4 + 0.2 at 25 °C***

**PRECAUTIONS AND WARNINGS**

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

Wearing personnel protective equipment (overall, gloves, glasses,).

Do not pipette by mouth.

In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.

Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the Campylobacter Agar Base material safety data sheet.

**STORAGE AND STABILITY**

**Lab.Vie** Campylobacter Agar Base should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

**PREPARATION**

Suspend 19.75 grams in 500 ml purified/distilled water.

Adjust pH to 7.4 + 0.2 at 25 °C

Heat to boiling to dissolve the medium completely.

Sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes.

Cool to 40-50°C and aseptically add 5-7% v/v sterile lysed horse blood or 10% sterile defibrinated sheep blood and rehydrated contents of one vial of Blaser-Wang Selective Supplement, or Skirrow Selective Supplement.

Mix well before pouring into sterile Petri plates

**Deterioration**

The color of **Lab.Vie** Campylobacter Agar Base is Cream to yellow homogeneous free flowing powder. Prepared medium:

Basal medium: Yellow coloured clear gel

After addition of 5-7% v/v lysed blood: Reddish brown coloured opaque gel forms in Petri plates.

If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

**EQUIPMENT REQUIRED NOT PROVIDED**

Sterile cups

Sterile petri-dishes

Incubator

**SPECIMEN**

Clinical samples - faeces; Food and dairy samples; Environmental samples.

**PERFORMANCE CHARACTERISTICS**

Cultural characteristics observed under reduced oxygen atmosphere after an incubation at 35-37°C for 24-48 hours. (Blaser-Wang Selective Supplement/ Skirrow Selective Supplement)

|  |  |  |
| --- | --- | --- |
| Oranism | Growth with Blaser-Wang Selective Supplement | Growth with Skirrow Selective  Supplement |
| Candida albicans ATCC 10231 | None - poor | Moderate |
| Campylobacter jejuni ATCC 29428 | Good-luxuriant | Good-luxuriant |
| Escherichia coli ATCC 25922 | None - Poor | None - Poor |
| Enterococcus faecalis ATCC 29212 | None - Poor | None - Poor |

**QUALITY CONTROL**

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **Lab.Vie** technical support.

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| Caution |  | Batch Code/Lot number | **LOT** |
| Do not use if package is damaged |  | Catalogue Number | **REF** |
| Consult Instruction for use |  | Temperature Limitation |  |
|  |  | Expiration Date |  |
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