# CHROMagar™ Campylobacter



## MEDIUM PURPOSE

Chromogenic medium for detection, differentiation and enumeration of thermotolerant *Campylobacter* according to the ISO 10272-1: 2006.

*"Campylobacter* bacteria are a major cause of foodborne diarrhoeal illness in humans and are the most common bacteria that cause gastroenteritis worldwide. In developed and developing countries, they cause more cases of diarrhoea than foodborne Salmonella. The high incidence of *Campylobacter* diarrhoea, as well as its duration and possible sequelae, makes it highly important from a socio-economic perspective. In developing countries, *Campylobacter* infections in children under the age of two years are especially frequent, sometimes resulting in death." World Health Organisation (WHO) – fact sheet N°255

## COMPOSITION

The product is composed of a powder base (B) and 1 supplement (S).

| Product = | Base (B) | + Supplement (S) |
|---|---|---|
| Total g/L | 51.2 g/L | 0.21 g/L |
| Composition g/L | Agar 15.0<br>Peptone and yeast extract 25.0<br>Salts 9.0<br>Chromogenic and selective mix 2.2 | Chromogenic and selective mix 0.21 |
| Aspect | Powder Form | Powder Form |
| STORAGE | **15/30 °C** | **2/8 °C** |
| FINAL MEDIA pH | 7.4 +/- 0.2 | |

## PREPARATION **(Calculation for 1L)**

### Step 1
Preparation of the base CHROMagar Campylobacter (B)

- Disperse slowly 51.2 g of powder base in 1L of purified water.
- Stir until agar is well thickened.
- Heat and bring to boil (100 °C) while swirling or stirring regularly.

DO NOT HEAT TO MORE THAN 100 °C. DO NOT AUTOCLAVE AT 121 °C.

Warning 1: If using an autoclave, do so without pressure.

Advice 1: For the 100 °C heating step, mixture may also be brought to a boil in a microwave oven: after initial boiling, remove from oven, stir gently, then return to oven for short repeated bursts of heating until complete fusion of the agar grains has taken place (large bubbles replacing foam).

- Cool in a water bath to 45-50 °C. Swirl or stir gently to homogenize.

### Step 2
Preparation of the Supplement (S)

- In a transparent vessel, add 210 mg of Supplement (S) in 10 ml of purified water.
- Swirl well until complete dissolution.
- Filter to sterilize at 0.45 µm.

| Final Media | HELPING CALCULATION |
|---|---|
| 1 L | 0.21 g into 10 ml of purified water |
| 5 L | 1.05 g into 50 ml of purified water |

### Step 3
Base + S

- Add the 10 ml of the supplement solution to the melted base (Step1) at 45-50 °C.
- Swirl or stir gently to homogenize.

### Step 4
Pouring

- Pour into sterile Petri dishes.
- Let it solidify and dry.

### Storage

- Store in the dark before use.
- Prepared media plates can be kept for one day at room temperature.
- Plates can be stored for up to 1 month under refrigeration (2/8 °C) if properly prepared and protected from light and dehydration.

## INOCULATION

Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate at 42 °C for 36 - 48 h in micro-aerophilic conditions.

Advice 2: A candle jar can be used for creating a microaerophilic atmosphere.

| Typical Samples |
|---|
| e.g.<br>faeces, chicken...<br>***<br>Direct streaking<br>or spreading technique |

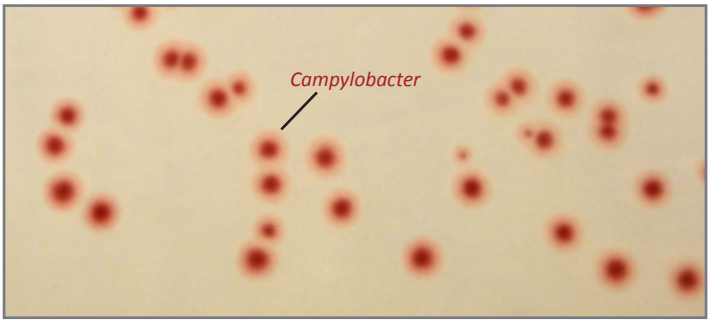
# CHROMagar™ Campylobacter



## INTERPRETATION

| Microorganism | Typical colony appearance |
|---|---|
| *Campylobacter coli* | → red |
| *Campylobacter jejuni* | → red |
| *Campylobacter lari* | → red |
| Most other microorganisms | → blue or inhibited |

**Typical** colony appearance




The pictures shown are not contractual

## PERFORMANCE & LIMITATIONS

- Final identification may require complementary tests such as hippurate hydrolisis and latex agglutination (Microgen), directly from the plate.
- Other final identification tests can be done from a subculture on blood agar (oxydase, acetate test, ...).
- *C.fetus* might not grow in this medium.

## QUALITY CONTROL

Please perform Quality Control according to the use of the medium and the local QC regulations and norms.
Good preparation of the medium can be tested, isolating the ATCC strains below:

| Microorganism | Typical colony appearance | Recovery |
|---|---|---|
| *C.jejuni* ATCC® 29428 | red | > 70% |
| *C.jejuni* ATCC® 33291 | red | > 70% |
| *C.lari* ATCC® 35221 | red | > 80% |
| *E.faecalis* ATCC® 29212 | inhibited | -- |
| *C.albicans* ATCC® 60193 | inhibited | -- |
| *E.coli* ATCC® 25922 | inhibited | -- |

## WARNINGS

- Do not use plates if they show any evidence of contamination or any sign of deterioration.
- Do not use the product beyond its expiry date or if product shows any evidence of contamination or any sign of deterioration.
- For *in vitro* diagnostic use. This laboratory product should be used only by trained personnel in compliance with good laboratory practices.
- Any change or modification in the procedure may affect the results.
- Any change or modification of the required storage temperature may affect the performance of the product.
- Inappropriate storage may affect the shelf life of the product.
- Recap the bottles tightly after each preparation and keep them in a low humidity environment, protected from moisture and light.
- For a good microbial detection: collection and transport of specimen should be well handled and adapted to the particular specimen according to good laboratory practices.

## REFERENCES

Please refer to our website page «Publications» for scientific publications about this particular product.
Web link: http://www.chromagar.com/publication.php

## DISPOSAL OF WASTE

After use, all plates and any other contaminated materials must be sterilized or disposed of by propriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121°C for at least 20 minutes.

## IFU/LABEL INDEX

Σ Quantity of powder sufficient for X liters of media

Expiry date

Required storage temperature

Store away from humidity

| Pack Size | | | Ordering References | | Base (B) | | Supplement (S) |
|---|---|---|---|---|---|---|---|
| 5000 ml | 250 Tests of 20ml | = | CP572 | = | CP572(B) Weight: 256 g | + | CP572(S) Weight: 1.05 g |
| 25 L | 1250 Tests of 20ml | = | CP573-25 | = | CP573-25(B) Weight: 1280 g | + | CP573-25(S) Weight: 5.25 g |

**Need some Technical Documents?**

Available for download on www.CHROMagar.com

- Certificate of Analysis (CoA) --> One per Lot
- Material Safety Data Sheet (MSDS)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