

## Campylobacter Agar Base, Skirrow (i23211)

When supplemented with blood or other additives and antimicrobial agents, is used for the isolation of *Campylobacter* from clinical material in human and veterinary medicine, and from contaminated foodstuffs, water etc.

Industry: Environmental Samples / Food / Clinical / Water

## Principles & Uses

*Campylobacter*, particularly *C. jejuni* and *C. coli*, are recognized for causing gastrointestinal illnesses. *C. jejuni*, a major contributor to diarrheal diseases, is increasingly antibiotic-resistant, posing a significant public health concern. The differentiation of *Campylobacter* species is crucial due to variations in antibiotic resistance patterns.

Campylobacter Agar Base, recommended by official guidelines, employs extracts, peptone, agar, and salt to support bacterial growth while inhibiting unwanted microbes. The presence of specific antibiotics ensures the selective isolation of *Campylobacter*, making this medium vital in clinical diagnostics, especially for vulnerable populations. This medium incorporates polymyxin B, trimethoprim, and vancomycin, suppressing the normal microbial flora in fecal specimens to facilitate the isolation of *Campylobacter jejuni*. Lysed horse blood contributes the X factor (heme) and other growth requirements.

Incorporating Campylobacter Agar Base into diagnostic protocols is essential, given the clinical significance of *Campylobacter* species, particularly in high-risk groups. This medium plays a critical role in the primary culture of *Campylobacter* from fecal samples, adhering to established microbiological standards.

## Composition (gr/L)

Proteose Peptone 15 g, Liver Extract 2 g, Yeast Extract 5 g, Soluble Starch 1 g, Sodium Chloride 5 g, Agar 12 g.  
Final pH at 25°C 7.4 ± 0.2

## Preparation from dehydrated Powder

Suspend 20 g of the powder in 500 ml of distilled water. Autoclave for 15 min at 121 °C. Cool to 45 - 50 °C, add 5-7% defibrinated blood (sheep, horse) and 1 vial of Skirrow Campylobacter Selective Supplement per 500 ml of the medium. Mix well and pour into plates.

## Quality Control

Dehydrated Appearance: Homogeneous, free flowing, and beige.

Prepared Appearance: medium to dark amber, slightly opalescent (without blood), and cherry red, opaque (with blood).

Reaction of 4.0% Solution at 25°C: pH 7.4 ± 0.2

## Cultural Response

Cultural response on Campylobacter Agar Skirrow, supplemented with 7% defibrinated sheep blood and 1 vial of Skirrow Campylobacter Selective Supplement / 500 ml, at 42°C for 40-48 hours was observed as below.

| Organism (ATCC*)                     | Recovery  |
|--------------------------------------|-----------|
| <i>Campylobacter jejuni</i> (33291)  | Good      |
| <i>Campylobacter jejuni</i> (29428)  | Good      |
| <i>Enterococcus faecalis</i> (33186) | Good      |
| <i>Escherichia coli</i> (25922)      | Inhibited |

\*ATCC is a registered trade mark of the American Type Culture Collection.

## Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.