

## Campylo Thioglycollate Broth w/ Selective Supplement

LQ132

### Intended use

For isolation and maintenance and transport of cultures of *Campylobacter* species from clinical samples.

### Composition\*\*

Ingredients	g / L
Tryptone	20.000
Sodium chloride	2.500
Dipotassium hydrogen phosphate	1.500
Sodium thioglycollate	0.600
L-Cystine	0.400
Sodium sulphite	0.200
Agar	1.600
Polymyxin B	1,250 IU
Vancomycin	5.00 mg
Trimethoprim	2.50 mg
Amphotericin B	1.00 mg
Cephalothin	7.50 mg

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Label the ready to use LQ132 bottle. Inoculate the sample and Incubate at specified temperature and time.

### Principle And Interpretation

*Campylobacter* infections occur sporadically in the summer months and usually follow ingestion of improperly handled or cooked food, primarily poultry products (1). Dekeyser et al (2) reported that *Campylobacter jejuni* could be isolated on a selective media supplemented with antimicrobials from the faeces of patients having diarrhea and gastroenteritis (by the filtration technique). The antimicrobials help to inhibit the normal enteric flora of faeces. Skirrow used a selective medium with three antimicrobials i. e. vancomycin, polymyxin B and trimethoprim (3). Later on, Blaser et al isolated *C. jejuni* by direct inoculation of faeces sample on an agar medium containing four antibiotics (4). They also reported that *C. jejuni* could be isolated from faeces sample held at refrigeration temperature for duration of 8-10 hours in Thioglycollate Broth, incorporated with the four antibiotics (4). Blaser et al later included the fifth antibiotic cephalothin to inhibit non-pathogenic *Campylobacter fetus* (4). Campylo Thioglycollate Medium Base (with antibiotics) is generally used as a holding medium when immediate examination and testing of samples is not possible (5). Campylo Thioglycollate Medium Base is also recommended by APHA for maintenance, transport and storage of cultures of *Campylobacter* species (6). It is also used for enrichment of *Campylobacter* species from stool samples (1).

The medium contains necessary nutrients to promote growth of *Campylobacter* species. Also it consists of five antibiotics viz. amphotericin B, cephalothin, polymyxin B, trimethoprim and vancomycin which inhibits multiplication of normal microbial flora in faecal specimens thus facilitating isolation of *C. jejuni*. Cephalothin may not always inhibit *C. fetus* species and some strains may grow at 42°C. Further tests should be performed to confirm *C. jejuni*.

Rectal swabs can be directly inoculated into the medium. About 5 drops of stool sample (prepare a saline suspension if stool is solid) can be placed on the medium about 1cm below the surface. Inoculated Campylo Thioglycollate Medium Base can be refrigerated and subcultured on Campylobacter Agar Base (M994) with Campylobacter Supplement-I (Blaser-Wang, FD006).

### Type of specimen

Clinical samples - Faeces

### Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).

After use, contaminated materials must be sterilized by autoclaving before discarding.

## Warning and Precautions

In Vitro diagnostic use only. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

## Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
3. It is generally used as a holding medium when immediate examination and testing of samples is not possible (5).

## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Sterile Campylo Thioglycolate Broth in bottles.

### Colour

Light to medium amber coloured viscous solution

### Quantity of Medium

5 ml of medium in glass bottle.

### pH

6.80- 7.20

### Sterility Check

Passes release criteria

### Cultural response

Cultural characteristics observed after incubation at 42°C with 5-12% CO<sub>2</sub> for 24-48 hours.

Organism	Growth
<i>Campylobacter coli</i> ATCC 33559 (00072*)	good-luxuriant
<i>Campylobacter jejuni</i> ATCC 33291 (00005*)	good-luxuriant
<i>Escherichia coli</i> ATCC 25922 (00013*)	none-poor

Key : (\*) Corresponding WDCM numbers.

## Storage and Shelf Life

On receipt store between 2-8°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (6,7).

## Reference

- 1.Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
- 2.Dekeyser, Gossuin-Detrain, Butzler and Sternan, 1972, J. Infect. Dis ., 125:390.
- 3.Skirrow M. B., 1977, Br. Med. J., 2:9.

4. Blaser et al, 1979, Ann. Intern. Med., 91:179.
5. Reller, Wang and Blaser, 1979, ASCP check sample, Microbiology No.MB -99. Commission of Continuing Education, ASCP, Chicago.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
7. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W.(2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

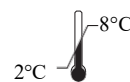
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**IVD** *In vitro* diagnostic  
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**Storage temperature**



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