

TM 987 – DOYLE'S ENRICHMENT BROTH BASE

INTENDED USE

For selective enrichment of *Campylobacter* species.

PRODUCT SUMMARY AND EXPLANATION

Campylobacter have long been known as pathogens of animal but two species i.e. *Campylobacter jejuni* and *Campylobacter coli* are now among the commonest identified cause of enteritis in man. It was due to the former lack of selective culture medium for their isolation from faeces that their role as human pathogens was not recognized.

Doyles Enrichment Broth Base is recommended by APHA for enrichment of *Campylobacter* species. Dekeyser et al reported the isolation of *Campylobacter jejuni* from the faeces of patients with diarrhoea and acute gastroenteritis using a filtration technique and a selective medium with antimicrobics to suppress the normal enteric flora. Skirrow reported a selective medium containing three antimicrobics. Blaser et al reported success in isolating *Campylobacter jejuni* with a medium containing four antimicrobics added to Brucella Agar supplemented with defibrinated sheep blood.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Peptone	10.000
Yeast extract	2.000
Dextrose (Glucose)	1.000
Sodium chloride	5.000
Sodium bisulphite	0.100
Sodium succinate	3.000
L-Cysteine hydrochloride	0.100

PRINCIPLE

The medium consists of Peptone, Tryptone, yeast extract, and blood which provide the nitrogenous compounds, vitamin B, X factor (heme) and other growth factors for the growth of *Campylobacter* species. Dextrose serves as a source of energy. Inclusion of antibiotics like vancomycin, trimethoprim, polymyxin B and cycloheximide suppresses the growth of the normal microbial flora in faecal specimens, thereby facilitating easy isolation of *Campylobacter* species.

INSTRUCTION FOR USE

- Dissolve 15.6 grams in 460 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add 35 ml sterile lysed horse blood and rehydrated contents of 1 vial of Doyle's Antibiotic Supplement.
- Mix well and dispense into tubes or flasks as desired.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Basal medium: Light amber coloured clear solution. After addition of sterile lysed horse blood : Cherry red coloured, opaque solution in tubes.
pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed under reduced oxygen atmosphere, with added sterile lysed horse blood and Doyle's Antibiotic Supplement after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Candida albicans</i>	10231	10-100	None-poor	35-37°C	24-48 Hours
<i>Campylobacter jejuni</i>	29428	50-100	Luxuriant	35-37°C	24-48 Hours
<i>Escherichia coli</i>	25922	50-100	None-poor	35-37°C	24-48 Hours
<i>Enterococcus faecalis</i>	29212	50-100	None-poor	35-37°C	24-48 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.







DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- Blaser, Cravens, Powers and Wang, 1978, Lancet, 2:979.
- Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone
- D. C. Dekeyser, et al, 1972, J. Infect. Dis., 125:390.
- Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
- Skirrow, 1977, Br. Med. J., 2:9.



GMP Good Manufacturing Practices Certified	IVD For In Vitro Diagnostic Use	QTY. Quantity	LOT/ B. NO. Lot / Batch Number	REF Catalogue Number	 Manufacturer
 Temperature Unit	EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10, 48163 Münster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019