TM 2045 – COLUMBIA BLOOD AGAR BASE (ISO 10272-2:2017)

INTENDED USE

Recommemded for selective detection and enumeration of *Campylobacter species* from food chain.

PRODUCT SUMMARY AND EXPLANATION

Campylobacter are carried in the intestinal tract of animal and therefore contaminate foods of animal origin. *Campylobacter* causes intestinal upset or abortion in animals. It is also one of the most important causes of human gastroenteritis, particularly in children. Columbia Blood Agar Base was devised by Ellner et al and recommended by the ISO Committee is used for selective isolation of *Campylobacter* species. This medium contains peptone which supports rapid and luxuriant growth of fastidious and non-fastidious organisms. Also, this medium promotes typical colonial morphology; better pigment production and more sharply defined haemolytic reactions.

However, it is devoid of V factor (Nicotinamide adenine dinucleotide) and hence *Haemophilus influenzae* which needs both the X and V factors, will not grow on this medium. As this medium have a relatively high carbohydrate content, beta-haemolytic Streptococci may exhibit a greenish haemolytic reaction which may be mistaken for the alpha haemolysis. Carry out confirmatory tests of all the colonies.

COMPOSITION

Ingredients	Gms / Ltr
Digest of animal tissues	23.000
Starch soluble	1.000
Sodium chloride	5.000
Agar	15.000

PRINCIPLE

Starch serves as an energy source and also neutralizes toxic metabolites. Sheep blood permits the detection of haemolysis and also provides heme (X factor) which is required for the growth of many bacteria.

INSTRUCTION FOR USE

- Dissolve 44.0 grams of in 1000 ml purified/ distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Aseptically add 5% v/v sterile defibrinated sheep blood. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Basal medium: Light amber coloured clear to slightly opalescent gel. After addition of 5%w/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates.

pH (at 25°C) : 7.3±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added 5% w/v sterile defibrinated blood.

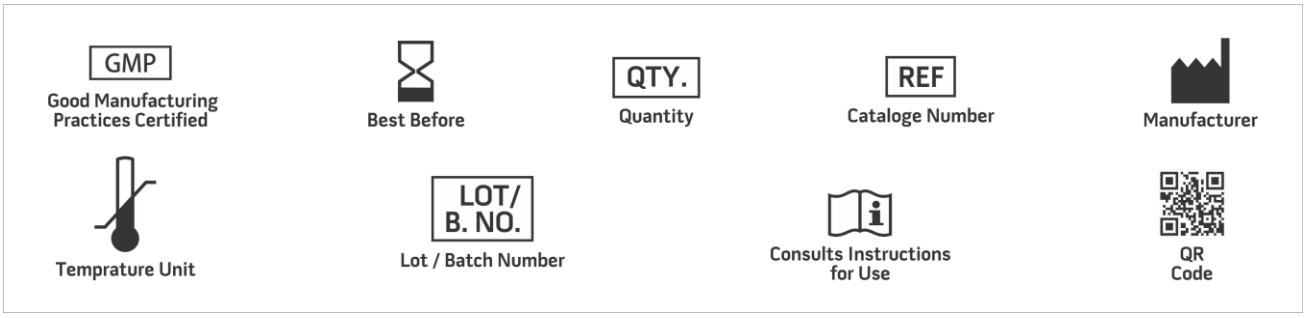
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Campylobacter coli	33559	50-100	Good-luxuriant	>=50%	35-37°C	24-48 Hours
Campylobacter jejuni	29428	50-100	Good-luxuriant	>=50%	35-37°C	24-48 Hours

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
1. Ellner P. P., Stoessel C. J., Drakeford E. and Vasi F., 1966, Am. J. Clin. Pathol., 45:502.
2. Microbiology of food chain-Horizontal method for detection and enumeration of Campylobacter spp. International Organization for Standardization (ISO), 10272-2:2017(E).
3. Salfinger Y. and Tortorello M. L., (Eds.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., APHA, Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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