

TM 1886 – CLOSTRIDIUM PERFRINGENS AGAR

INTENDED USE

For identification and enumeration of *Clostridium perfringens* from food.

PRODUCT SUMMARY AND EXPLANATION

Clostridium perfringens, ranked behind *Salmonella* species and *Staphylococcus aureus*, has been the third most common etiological agent of food-borne disease. *Clostridium* species are spore forming, gram-positive rods occurring naturally in soil. *C.perfringens* food poisoning results from eating contaminated food. The major virulence factor of *C.perfringens* is the CPE enterotoxin, which is secreted upon invasion of the host gut, and contributes to food poisoning and other gastrointestinal illnesses. *C.perfringens* cells may lose viability if the suspected food samples are refrigerated, thereby making it difficult to incriminate the organisms in food poisoning outbreaks. *C.perfringens* Agar Base is recommended for detecting *C.perfringens* from raw foods. If desired, Kanamycin can be added to the medium which restricts the growth of other bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Heart extract	5.000
Proteose peptone	10.000
Peptone	10.000
Sodium chloride	5.000
Lactose	10.000
Phenol red	0.050
Agar	20.000

PRINCIPLE

Heart extract, proteose peptone and peptone provides nitrogenous, carbonaceous nutrients, amino acids and other complex nutrients. Lecithinase of *C.perfringens* degrades lecithin of egg yolk, forming an insoluble opaque precipitate. Addition of tellurite and Kanamycin aids for selective isolation of *C.perfringens*.

INSTRUCTION FOR USE

- Dissolve 60.05 grams in 900 ml distilled water.
- Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE.
- Cool to 45-50°C and aseptically add 100 ml sterile Egg Yolk Tellurite Emulsion.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to light pink homogeneous free flowing powder.
Appearance of prepared medium	: Basal medium - Red coloured, clear to very slightly opalescent gel. After addition of Egg Yolk Emulsion -Light red coloured, opaque gel forms in Petri plates.
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Egg Yolk Tellurite Emulsion.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
<i>Clostridium perfringens</i>	13124	50-100	Good-luxuriant	>=50%	Black opaque zone around the colony	35-37°C	24-48 Hours
<i>Clostridium perfringens</i>	12916	50-100	Good-luxuriant	>=50%	Black opaque zone around the colony	35-37°C	24-48 Hours

PACKAGING:

In pack size of 100 gm and 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. Centre for Disease Control, 1982, CDC Surveillance Summaries, 35:7SS-16SS, 1986.
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5. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2 nd Edition.
6. 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.

 Good Manufacturing Practices Certified	 For In Vitro Diagnostic Use	 Quantity	 Lot / Batch Number	 Catalogue Number	 Manufacturer
 Temperature Unit	 Authorized Representative MedNet GmbH Borkstrasse 10, 49163 Muenster, Germany	 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**
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