

TM 615 – TRYPTOSE SULPHITE CYCLOSERINE AGAR BASE

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

Tryptose Sulphite Cycloserine Agar (TSC) was originally formulated by Harmon et al for the enumeration of *C. perfringens* from food. TSC Agar has been documented as one of the most useful media for the quantitative recovery of *C. perfringens* while suppressing growth of other facultative anaerobes. Perfringens Agar Base is also recommended by APHA. Perfringens Agar Base can be made selective either by addition of D-cycloserine or Kanamycin and Polymyxin B. TSC Agar Base or SFP Agar Base is comparable in performance for isolation of *C. perfringens*.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	15.000
Beef extract	5.000
Soya peptone	5.000
Yeast extract	5.000
Sodium metabisulphite	1.000
Ferric ammonium citrate	1.000
Agar	15.000

PRINCIPLE

Tryptose, Soya peptone, yeast extract, Beef extract provide nitrogenous compounds, carbon, sulphur, vitamin B complex and trace elements essential for clostridial growth. Sodium metabisulphite and ferric ammonium citrate act as an indicator of sulphite reduction, indicated by black coloured colonies. D-Cycloserine, Kanamycin and Polymyxin B help in the selective isolation of *C. perfringens* by inhibiting accompanying flora. Egg yolk emulsion serves as a source of lecithin utilized by *C. perfringens*.

INSTRUCTION FOR USE

- Suspend 23.5 grams in 475 ml purified / distilled water. Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°) for 15 minutes. Cool to 45-50°C.
- Add 25 ml of Egg Yolk Emulsion and rehydrated contents of 1 vial of S.F.P. Supplement / T.S.C. Supplement.
- Alternatively, if fluorogenic detection is desired add rehydrated contents of Clostridium perfringens supplements instead of S.F.P. Supplement/ T.S.C. Supplement.
- Mix well before pouring into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to brownish yellow homogeneous free flowing powder.
Appearance of prepared medium	: Amber coloured clear to slightly opalescent gel. After Addition of Egg Yolk Emulsion : Yellow coloured opaque gel forms in Petri plates.
pH (at 25°C)	: 7.6±0.2

INTERPRETATION

Cultural characteristics observed under anaerobic condition with added TSC Supplement/S.F.P Supplement/Clostridium Perfringens Supplement and Egg Yolk Emulsion, after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Sulphite Reduction	Lecithinase/Haloes	Fluorescence	Incubation Temperature	Incubation Period
<i>Clostridium perfringens</i>	12924	50-100	Luxuriant	>=70%	Positive, blackening of medium	Positive reaction, opaque zone around the colony	Positive Reaction	35-37°C	18-24 Hours
<i>Clostridium sordellii</i>	9714	>=10 ⁴	Inhibited	0%	-	-	-	35-37°C	18-24 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. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 2, Williams and Wilkins, Baltimore.
2. 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.
3. Harmon S. M., Kauttar D.A. and Peiler J. T., 1971, Appl. Microbiol., 22:688.
4. Harmon S. M. and Kautter D.A., 1987, J. Asso. Off. Anal. Chem., 70: 994.
5. Horwitz, (Ed.), Official Methods of Analysis of AOAC International, 17th Ed., AOAC International, Gaithersburg, Md.

 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 Birkstrasse 10 48163 Muenster, 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**
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