

39727 Perfringens Agar Base

Perfringens Agar Base with the addition of selective supplement and enrichment is used for the presumptive identification and enumeration of *Clostridium perfringens* from food.

Composition:

Ingredients	Grams/Litre
Tryptose	15.0
Papaic digest of soybean meal	5.0
Beef extract	5.0
Yeast extract	5.0
Sodium metabisulphite	1.0
Ferric ammonium citrate	1.0
Agar	15.0
Final pH 7.6 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:

Suspend 23.5 g of Perfringens Agar Base in 475 ml of distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C. Add 25 ml of Egg Yolk Emulsion (17148) and additionally the rehydrated contents of 1 vial of Perfringens S.F.P. Supplement (53436) or 1 vial of Perfringens T.S.C. Supplement (P9352). Mix well and pour into sterile petri plates.

Principle and Interpretation:

Tryptose, papaic digest of soyabean meal, yeast extract and beef extract provide nitrogenous compounds, carbon, sulphur and vitamin B complex for clostridial growth. Sodium metabisulphite and ferric ammonium citrate act as indicators of sulphite reduction, indicated by black colored colonies (colour from iron sulphite). The Perfringens S.F.P. Supplement contains the selectives antibiotics Kanamycin sulphate and Polymyxin B. Perfringens T.S.C. Supplement inhibits with cycloserine all organisms except *Clostridium perfringens*.

Cultural characteristics after 18-24 hours at 35°C under anaerobic conditions.

Organisms (ATCC)	Growth	Sulphite reduction
<i>Clostridium perfringens</i> (12924)	+++	+
<i>Clostridium sordellii</i> (9714)	-	-

References:

1. S.M. Harmon, et al., Appl. Microbiol. 22, 688 (1971)
2. A.H.W. Hauschild, et al., Appl. Microbiol. 27, 78 (1974)
3. Compendium of Methods for the Microbiological Examination of Foods, Vanderzant, C. et al., eds. 3rd Edition. APHA. Washington, D.C. (1992)
4. Harmon, S.M., et al., J. Assoc. Off. Anal.Chem 70, 994 (1987)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

