

Fastidious Anaerobe Agar

BC2090

The medium of choice for the routine isolation of clinically significant anaerobes, this medium supports the growth of most fastidious anaerobes. Classical colony formation, odour and fluorescence under UV are diagnostic features on this medium. The choice of peptones and growth factors provide early growth of most organisms whilst the starch has an important role as a de-toxification agent. The medium is often made selective for various groups of anaerobes by the addition of appropriate selective agents.

Formula	grams per litre
Peptones mix	23.0
Sodium chloride	5.0
Starch	1.0
Glucose	1.0
Sodium pyruvate	1.0
Arginine	1.0
Sodium succinate	0.5
Sodium bicarbonate	0.4
L-cysteine HCl	0.4
Ferric pyrophosphate	0.3
Haemin	0.005
Vitamin K	0.004
Bacteriological Agar	12.0

pH 7.3 +/- 0.2

Preparation

Suspend 45.6 grams of powder in 1 litre of deionised water.

Autoclave at 121°C for 15 minutes. Cool to 48°C and add 5-7% of sterile defibrinated horse or sheep blood. Mix well by swirling and pour into 90mm petri dishes. (Optional – The medium may be made selective by addition of antibiotic supplements.)

Appearance: Dependant upon the oxygenation level of the added blood. Should not show signs of haemolysis.

Storage of Prepared Medium

Plates should be stored at 4-8°C in the dark. Plates should be used within 1 week.

Quality Control Organisms - Suggestions

<i>Bacteroides fragilis</i>	ATCC 25285	
<i>P. anaerobius</i>	NCTC 12981	β haemolysis
<i>C perfringens</i>	ATCC 13124	'target' haemolysis

Selective Agents

Organism	Code	Selective Agent
General anaerobes	S2015, S2215	Neomycin 75 mg/L
Gram negative anaerobes (GN)	S2090, S2290	Naladixic Acid 10 mg /L Vancomycin 2.5 mg/L
Non-sporing anaerobes (NS)	S2091, S2291	Naladixic Acid 10 mg/L
<i>Clostridium difficile</i>	S2093	Cycloserine 250 mg/L Cefoxitin 8 mg/L
Actinomyces spp.	S2092	Metronidazole 10 mg/L Naladixic Acid 30 mg /L

References:

Wren M.W.D., 1980 J Clin Path 33:61-65. Multiple selective media for the isolation of anaerobic bacteria.
George W.I., Sutter V.V. L., Citron D, Finegold S. M, 1976. Selective and differential medium for *Clostridium difficile*