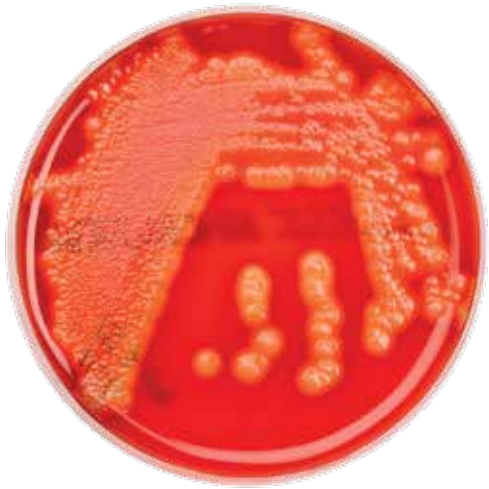
Thermo Scientific A.R.I.A. Anaerobe Recovery and Isolation Agar

A new medium for isolation of fastidious and non-fastidious anaerobic bacteria

Anaerobic bacteria are known to cause a wide variety of human infections of the skin and soft tissues, and of the respiratory, gastrointestinal and female genital tracts. The need to determine the presence of anaerobes from clinical samples has become increasingly important with the re-emergence of anaerobic bacteraemia and the prevalence of multiple-drug-resistant microorganisms. Microbial culture remains a key tool in the determination of anaerobic bacteria species, and the choice of medium is fundamental to ensuring an accurate diagnosis.



Test procedure

Direct inoculation

Incubate plates for 48 h at 36 °C +/- 1 °C

Growth

Testing with UV light

Thermo Scientific™ A.R.I.A.™ Anaerobe Recovery and Isolation Agar is a general purpose anaerobic growth medium, providing enhanced recovery of fastidious anaerobes (including *Fusobacterium* species) from clinical samples within 24-72 hours.

Made from Thermo Scientific™ Oxoid™ dehydrated culture media, it contains 5% defibrinated horse blood and peptones, carefully selected to support good growth of anaerobic bacteria. Yeast extract provides a vitamin source and starch is present to absorb any toxic metabolites. The L-cysteine is present in the medium as a reducing agent and has shown to stimulate the growth of some anaerobes[1]. Glucose is the main carbohydrate and sodium pyruvate is also added as an energy source for asaccharolytic cocci such as *Veillonella.* Haemin and Vitamin K are also included as growth factors required by many *Bacteriodes* species[2].

Fastidious Anaerobe Agar (F.A.A.) containing horse blood is a commonly used medium for the isolation of anaerobes. To demonstrate that the performance of A.R.I.A. medium is equal to F.A.A. medium, an external study was conducted in the UK.

During this external trial with clinical samples, A.R.I.A. medium was compared to Thermo Scientific™ Oxoid™ Fastidious Anaerobe Agar (PO0419A F.A.A. with Neomycin and PB0225A F.A.A. with Horse Blood) with and without the addition of neomycin. A total of 98 isolates (comprising 59 Gram-positive and 39 Gram-negative organisms) were recovered on F.A.A. medium and A.R.I.A. media.

The performance of A.R.I.A. medium was comparable to F.A.A. medium for the growth of fastidious and non-fastidious anaerobes. Therefore, A.R.I.A. medium can be recommended as a suitable alternative to F.A.A. medium for the isolation of anaerobic bacteria both in pure culture and directly from clinical specimens.

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Ordering Information

PRODUCT NAME	CODE	SIZE
A.R.I.A medium with 5% Horse Blood	PB1243A	1 x 10 Plates
A.R.I.A medium with 5% Horse Blood and Neomycin	PB1244A	1 x 10 Plates
INCUBATION		
AnaeroJar™ Atmosphere Generating Jar (2,5L) For use with the 2.5 litre Thermo Scientific™ AnaeroGen™/CampyGen™ sachet Holds up to 12 plates	AG0025A	1 Jar
AnaeroGen Anaerobic Atmosphere Generating Kit	AN0025A	10 Sachets
IDENTIFICATION		
RapID™ Ana II Kit Identification of relevant medical strains in 4 hours	R8311002	20 Tests
AN-IDENT™ Discs Rapid and simple method for presumptive identification of anaerobic gram negative bacteria	DD0006A	6x50 Discs
Oxoid™ Kanamycin 1000 µg Discs For identification of Gram negative, anaerobic bacilli	DD0027B	5x50 Discs
Oxoid™ Metronidazole Discs (50 µg) **Sulphonamide Diagnstic Discs (1000 µg)** Aid in the identification of Gardnerella vaginalis	DD0008T DD0011T	50 Discs 50 Discs
SPS Discs Sodium polyanethol sulphonate discs for the presumptive identification of *Peptostreptococcus anaerobius*	DD0016T	50 Discs

References

(1) Shanson DC, Singh J. Effect of adding cysteine to brain heart infusion broth on the isolation of Bacteroides fragilis from experimental blood cultures. *Journal of Clinical Pathology* 1981; 34:221-3

(2) Gibbons RJ, Macdonald JB. Haemin and vitamin K as required factors for cultivation of certain strains of B. melaninogevicus. *Jounal of Bacteriology* 1960; 80:164-70

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