

PP2329 SKIRROW CAMPYLOBACTER AGAR PLATE**FORMULA**

Special Peptone	25.0	gm per litre
Starch	1.0	
Sodium Chloride	5.0	
Agar No. 1	10.0	
Sodium Pyruvate	0.250	
Sodium Metabisulphite	0.250	
Ferrous Sulphate	0.250	
Vancomycin	0.01	
Trimethoprim	0.005	
Polymixin	2500.0	IU
Horse Blood Defibrinated (Lysed)	50.0	mL

pH = 7.4 ± 0.2

DESCRIPTION

One of the major breakthroughs in isolation of campylobacters was the publication of Skirrow's paper in the British Medical Journal in 1977(1); this was the first of a number of papers in a short period of time of similar media and methods, such as Butzler's, and Blaser-Wang's media, to allow widespread isolation of these organisms. However, these agars were *clinically* oriented to derive organisms from faeces. Skirrow's media is designed to be incubated at 42°C, and this contributes to the selectivity of the medium. As use of Skirrow's medium is designed for thermophilic campylobacters, non-thermophilic campylobacters will not grow on this medium at 42°C.

Since Skirrow's publication, *Campylobacter jejuni* has rapidly become the most commonly recognised cause of bacterial gastroenteritis in man (2).

The medium is used in the Australian Standards method (3), and is an optional choice in the ISO standard method (4). Whilst this medium is described in Standards such as these, it is insufficiently selective for many types of sample (5).

QUALITY CONTROL

ORGANISMS: *E. coli* MVQC 0004 (ATCC™ 25922), *C. jejuni* MVQC 0097 (ATCC™ 33291), *C. coli* MVQC 0027 (ATCC™ 43478).

SAMPLE NUMBER: Sample size is determined in accordance with ASM Guidelines (6).

STERILITY: Those plates not used for bacteriological testing and other quality assurance procedures must be incubated at 30°C for 3 days after which they are examined for sterility.

INOCULUM: As described in TFS MBD WI 37, inoculate the specified test organism onto the media using working culture B ($\leq 10^2$ cfu) or working culture A ($\geq 10^4$ cfu).

INCUBATION: 48 hours/ 42°C/ Microaerophilic

EXPECTED RESULTS:

<i>E. coli</i>	<1+ small, wet colonies using Working Culture A
<i>C. jejuni</i>	4 - 5+ spreading colonies using Working Culture B
<i>C.coli</i>	4 - 5+ spreading colonies using Working Culture B

ALSO CHECKED AND RECORDED

1. Batch number correct
2. Colour
3. Clarity
4. Gel strength
5. Final pH 7.4 ± 0.2
6. Sterility
7. Correctly Labelled – SKIRROW PLATE

STORAGE

A shelf life of 10 weeks applies when this product is stored at 2° - 8°C in its original packaging.

REFERENCES

1. Skirrow, M.B. 1977. Brit. Med. J. **II**: 9-11.
2. Butzler, J-P. 2004. Clin. Microbiol. Infect. **10**: 868-876.
3. AS5013.6-2004. Food microbiology. *Method 6: Examination for specific organisms – Campylobacter*. 2004. Standards Australia, Sydney.
4. Technical Committee 34/ SC9. ISO 10272: 2006. *Microbiology of food and animal feeding stuffs -- Horizontal method for detection and enumeration of Campylobacter spp. 2006*. International Organization for Standardization (ISO), Geneva.
5. Post, D.E. Food-Borne Pathogens monograph #3. *Campylobacter*. 1996. Oxoid Limited, Basingstoke.
6. *Guidelines for Assuring Quality of Food and Water Microbiological Culture Media*. 2004. Culture Media Special Interest Group, Australian Society for Microbiology.