OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BISMUTH SULPHITE AGAR CM0201

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Typical Formula*

	grams per litre
Peptone	5.0
'Lab-Lemco' powder	5.0
Glucose	5.0
Di-sodium phosphate	4.0
Iron (II) sulphate	0.3
Bismuth sulphite indicator	8.0
Brilliant green	0.016
Agar	12.7

* adjusted as required to meet performance standards

Directions

Suspend 20g in 500ml of distilled water in a 1 litre flask. With frequent agitation, bring to the boil to dissolve completely. Cool to 50°C. Mix well to ensure even dispersion of the medium and pour 25ml into sterile Petri dishes. Allow the medium to solidify with the dish uncovered. Larger volumes may be prepared if great care is taken and adequate headspace is provided. DO NOT AUTOCLAVE. DO NOT OVERHEAT.

Physical Characteristics

Light green, free-flowing powder
Colour on reconstitution - light green
Moisture level - less than or equal to 7%
pH - 7.6 ± 0.2 at 25°C
Clarity - opaque
Gel strength - firm, comparable to 12.7g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Tryptone Soya Agar

Reactions after incubation at 37°C for 48 hours

Medium is challenged with 10-100 colony-forming units

Salmonella typhi	ATCC®19430	0.5-2mm black 'rabbit-eye' colonies with sheen
Salmonella typhimurium	ATCC®14028	0.25-2mm black colonies with sheen
Salmonella virchow	NCTC5742	0.25-2mm black colonies with sheen

Salmonella abony	NCTC6017	0.25-2mm black colonies with sheen
Salmonella poona	NCTC4840	0.25-2mm black colonies with sheen
Salmonella enteritidis	ATCC®13076	0.25-1.5mm green colonies

A satisfactory result is represented by recovery of positive strains equal to or greater than 70% of the control medium.

Medium is challenged with 50-200 colony-forming units

Escherichia coli	ATCC®25922	No growth to 1.5mm green colonies
Escherichia coli	ATCC®8739	No growth to 1.5mm green colonies
Klebsiella pneumoniae	ATCC®13883	No growth to 3.5mm green colonies
Citrobacter freundii	ATCC®8090	0.5-1.5mm dark green colonies

A satisfactory result is represented by recovery equal to or less than 100% of the control medium.

Medium is challenged with 1E+04 to 1E+06 colony-forming units

Staphylococcus aureus	ATCC®6538	No growth
Enterococcus faecalis	ATCC®29212	No growth
Pseudomonas aeruginosa	ATCC®9027	No growth to 1.0mm green colonies

Negative strains are inhibited. For *Pseudomonas aeruginosa* ATCC®9027, a satisfactory result is represented by a negative diagnostic reaction.

Equivalent results are obtained after incubation at 30-35°C for 48 hours.

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Revision History

Section / Step	Description of Change	Reason for Change	Reference
Reactions after incubation at 37°C for 48 hours'	Clarifying acceptable colony sizes for *Klebsiella pneumoniae* ATCC®13883	Change Control	MOC-2022-1108