OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRUCELLA MEDIUM BASE CM0169

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Typical Formula*

	grams per litre
Peptone	10.0
'Lab-Lemco' powder	5.0
Glucose	10.0
Sodium chloride	5.0
Agar	15.0

* adjusted as required to meet performance standards

Directions

Suspend 45g in 1 litre of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and add 5% v/v of inactivated Horse Serum (SR0035) (i.e. serum held at 56°C for 30 minutes). Mix well and pour into sterile Petri dishes.

The medium may be made selective by the addition of 1 vial of Brucella Selective Supplement (SR0083A) reconstituted as directed. Aseptically add the vial contents to 500ml of sterile molten Brucella Medium Base, cooled to 50°C and enriched with 50ml inactivated Horse Serum (SR0035) and 25ml of a 10% w/v sterile solution of Glucose (LP0071). Mix well and pour into sterile Petri dishes.

Physical Characteristics

Straw, free-flowing powder
Colour on reconstitution - straw 1-2
Moisture level - less than or equal to 7%
pH - 7.5 ± 0.2 at 25°C of complete medium
Clarity - clear
Gel strength - firm, comparable to 15.0g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Control Media: Tryptone Soya Agar, Columbia Blood Agar Base enriched with 5% v/v horse blood, Sabouraud Dextrose Agar or Brucella Medium Base enriched with 5% v/v inactivated horse serum, where appropriate

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Tested with the addition of 5% v/v inactivated horse serum

Reactions after incubation at 37°C for 24 hours in 10% CO_2 atmosphere

Medium is challenged with 10-100 colony-forming units

Streptococcus pneumoniae	ATCC®6303	Pinpoint-2mm translucent colonies
Bordetella bronchiseptica	ATCC®4617	Pinpoint-2mm translucent colonies
Listeria monocytogenes	ATCC®13932	Pinpoint-2mm translucent colonies
Staphylococcus aureus	ATCC®25923	1-3mm straw colonies

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

Tested with the addition of Brucella Selective Supplement SR0083, 10% v/v inactivated horse serum and 5% v/v of a filter-sterilised 10% w/v solution of glucose

Reactions after incubation at 37°C for 48 hours in 10% CO_2 atmosphere

Medium is challenged with 1E+02 to 1E+03 colony-forming units

Pseudomonas aeruginosa	ATCC®27853	1-3mm straw colonies

Medium is challenged with 1E+03 to 1E+04 colony-forming units

Candida albicans	ATCC®10231	No growth or pinpoint-0.5mm white colonies

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

Staphylococcus aureus	ATCC®25923	No growth
Escherichia coli	ATCC®25922	No growth

Negative strains are inhibited or shall produce at least a 1 log (10) reduction when compared to the control medium.

Reactions after incubation at 37°C for 10 days in CO_2 atmosphere

The growth characteristics of a well-characterised isolate of Brucella shall be comparable to the standard.

Brucella abortus	Biotype 2

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Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire Document	Update to new document format and correction of typographical/minor errors. Addition of Control Media and Result Criteria.	Change control	BT-CC-1842
Microbiological Tests	Correction of 0.5% w/v glucose solution to 5% v/v of a 10% w/v glucose solution.	Change control	BT-CC-1952