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OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
NUTRIENT AGAR CM0003		

NUTRIENT AGAR

CM0003

Typical Formula*

'Lab-Lemco' powder	grams per litre	1.0
Yeast extract		2.0
Peptone		5.0
Sodium chloride		5.0
Agar		15.0

* adjusted as required to meet performance standards

Directions

Suspend 28g 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. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Straw, free-flowing powder
 Colour on reconstitution - straw 1-2
 Moisture level - less than 7%
 pH 7.4 ± 0.2 at 25°C
 Clarity - clear
 Gel strength - firm, comparable to 15.0g/litre of agar

The medium is tested for compatibility using 7% v/v oxalated horse blood, defibrinated horse blood or defibrinated sheep blood. There shall be no evidence of lysis or darkening, after incubation at 37°C, 25°C and 4°C for 72 hours.

Thermophiles shall be absent after incubation at 55°C for 3 days.

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Nutrient Agar

Medium is challenged with 10-100 colony-forming units

Reactions after incubation at 37 ± 2°C for 24 ± 2 hours

Plain plates

<i>Staphylococcus aureus</i>	ATCC® 25923	1-2mm white/straw colonies
<i>Pseudomonas aeruginosa</i>	ATCC® 27853	1-3mm straw colonies

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

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Enriched with 7% v/v horse blood

<i>Streptococcus pyogenes</i>	ATCC® 19615	0.25-1mm colourless colonies, β haemolysis
<i>Streptococcus pneumoniae</i>	ATCC® 6303	1-2mm grey/green colonies, α haemolysis
<i>Streptococcus pneumoniae</i>	ATCC® 6305	0.5-1mm grey/green colonies, α haemolysis

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

Reactions after incubation in 5% CO₂ at 37 ± 2°C for 24 ± 2 hours (for details, refer to Oxoid Manual - Atmosphere Generation Systems)

Enriched with 7% v/v horse blood

<i>Haemophilus influenzae</i>	ATCC® 19418	Pinpoint-0.25mm colourless colonies
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A satisfactory result is represented by recovery of positive strains equal to or greater than 70% of the control medium.

Testing performed in accordance with ISO11133:2014

Medium is challenged with 50-120 colony-forming units

Reactions after incubation at 30 ± 2°C for 24 ± 2 hours

<i>Yersinia enterocolitica</i>	ATCC® 23715	WDCM00160	1-3mm straw colonies
<i>Yersinia enterocolitica</i>	ATCC® 9610	WDCM00038	1-3mm straw colonies

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

Reactions after incubation at 37 ± 2°C for 24 ± 2 hours

<i>Escherichia coli</i>	ATCC® 25922	WDCM00013	1-3mm straw colonies
<i>Escherichia coli</i>	ATCC® 8739	WDCM00012	1-3mm straw colonies
<i>Salmonella typhimurium</i>	ATCC® 14028	WDCM00031	1-3mm straw colonies
<i>Salmonella enteritidis</i>	ATCC® 13076	WDCM00030	1-3mm straw colonies

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

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Revision History

Section / Step	Description of Change	Reason for Change	Reference
Creation of ISO11133 section	Update to include testing of ISO11133:2014	Change control	BT-CC-1196