	Document Owner Department: QC	BT-SPEC-0047
		Page 1 of 3
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  $7.4 \pm 0.2$  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 $37 \pm 2^\circ\text{C}$ for $24 \pm 2$ 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.

	Document Owner Department: QC	BT-SPEC-0047
		Page 2 of 3
OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
NUTRIENT AGAR CM0003		

#### 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% CO<sub>2</sub> 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.

	Document Owner Department: QC	BT-SPEC-0047
		Page 3 of 3
OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
NUTRIENT AGAR CM0003		

## 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