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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 $37 \pm 2^\circ\text{C}$ 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

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OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
BRILLIANT GREEN BILE 2% BROTH CM0031		

BRILLIANT GREEN BILE 2% BROTH

CM0031

Typical Formula*

Peptone	grams per litre	10.0
Lactose		10.0
Ox-Bile (purified)		20.0
Brilliant green		0.0133

* adjusted as required to meet performance standards

Directions

Add 40g to 1 litre of distilled water. Mix well and distribute into containers fitted with Durham's tubes. Sterilize by autoclaving at 121°C for 15 minutes. Double strength broth - heat the dissolved broth at 100°C for 30 minutes - do not autoclave.

Physical Characteristics

Pale green, free-flowing powder
 Colour on reconstitution - green
 Moisture level less than or equal to 7%
 pH 7.4 ± 0.2 at 25°C
 Clarity - clear

Microbiological Tests Using Optimum Inoculum Dilution


Control Media: Tryptone Soya Agar or Columbia Blood Agar Base enriched with 5% v/v horse blood, where appropriate.

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

Medium is challenged with 10-100 colony-forming units

Enterobacter aerogenes NCTC9735 Turbid growth and gas

A satisfactory result is represented by visible growth and gas.

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BRILLIANT GREEN BILE 2% BROTH CM0031		

Reactions after incubation at 30 ± 2°C for 48 ± 2 hours

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

<i>Staphylococcus aureus</i>	ATCC®25923	No growth
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Negative strains are inhibited.

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

Medium is challenged with 10-100 colony-forming units

<i>Escherichia coli</i>	ATCC®8739	Turbid growth and gas
<i>Escherichia coli</i>	ATCC®25922	Turbid growth and gas
<i>Enterobacter aerogenes</i>	NCTC9735	Turbid growth and gas
<i>Citrobacter freundii</i>	ATCC®43864	Turbid growth and gas

A satisfactory result is represented by visible growth and gas.

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

Medium is tested at double strength

Medium is challenged with 10-100 colony-forming units

<i>Escherichia coli</i>	ATCC®8739	Turbid growth and gas
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A satisfactory result is represented by visible growth and gas.

Reactions after incubation at 37 ± 2°C for 48 ± 2 hours

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

<i>Staphylococcus aureus</i>	ATCC®25923	No growth
<i>Enterococcus faecalis</i>	ATCC®29212	No growth or turbid growth, no gas
<i>Enterococcus faecalis</i>	ATCC®19433	No growth or turbid growth, no gas

Enterococcus strains are inhibited or shall produce a maximum of a 2log(10) increase when compared to the initial inoculum. Negative strains are inhibited or shall produce partial inhibition and no gas.

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BRILLIANT GREEN BILE 2% BROTH CM0031		

E. coli confirmation test

Reactions after incubation at 44 ± 1°C for 24 ± 2 hours

<i>Escherichia coli</i>	ATCC®25922	Turbid growth and gas
<i>Escherichia coli</i>	ATCC®8739	Turbid growth and gas
<i>Enterobacter aerogenes</i>	NCTC9735	No growth or turbid growth, no gas
<i>Citrobacter freundii</i>	ATCC®43864	No growth

Gram +ve sporing anaerobes test

Reactions after incubation at 30 ± 2°C for 48 ± 2 hours

Enriched with 10% v/v pasteurised milk

<i>Clostridium perfringens</i>	ATCC®13124	No gas
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Reactions after incubation at 37 ± 2°C for 48 ± 2 hours

<i>Clostridium perfringens</i>	ATCC®13124	No gas
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Reactions after incubation at 44 ± 2°C for 48 ± 2 hours

<i>Clostridium perfringens</i>	ATCC®13124	No gas
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Testing performed in accordance with ISO11133:2014

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

Medium is challenged with 10-100 colony-forming units

<i>Escherichia coli</i>	ATCC®8739	WDCM00012	Turbid growth and gas
<i>Escherichia coli</i>	ATCC®25922	WDCM00013	Turbid growth and gas
<i>Citrobacter freundii</i>	ATCC®43864	WDCM00006	Turbid growth and gas

A satisfactory result is represented by visible growth and gas.


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BRILLIANT GREEN BILE 2% BROTH CM0031		

Reactions after incubation at 30 ± 2°C for 48 ± 2 hours

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


<i>Enterococcus faecalis</i>	ATCC®29212	WDCM00087	No growth to turbid growth, no gas
<i>Enterococcus faecalis</i>	ATCC®19433	WDCM00009	No growth to turbid growth, no gas

Enterococcus strains are inhibited or shall produce a maximum of a 2log(10) increase when compared to the initial inoculum. Negative strains are inhibited or shall produce partial inhibition and no gas.

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BRILLIANT GREEN BILE 2% BROTH CM0031		

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological characteristics	Update the reactions for <i>Enterococcus</i> strains.	Change control	MOC-2024-0431
Microbiological characteristics	Clarify the process for quantitative comparison of <i>Enterococcus</i> strains.	Change control	MOC-2024-0431

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OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
BUFFERED PEPTONE WATER (CM0509)		

BUFFERED PEPTONE WATER

CM0509

Formula

Peptone	grams per litre	10.0
Sodium chloride		5.0
Di-sodium phosphate		3.5
Potassium dihydrogen phosphate		1.5

Directions

Add 20g to 1 litre of distilled water. Mix well and distribute into final containers. Sterilize by autoclaving at 121°C for 15 minutes.

Physical Characteristics

Straw, free flowing powder
 Colour on reconstitution - straw 2-3
 Moisture level - less than 7%
 pH - 7.2 ± 0.2 at 25°C
 Clarity - clear (single and double strength broth)
 Buffering Capacity Test - passes test

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Tryptone Soya Agar

Reactions after incubation at $37 \pm 2^\circ\text{C}$ for 18 ± 2 hours

Medium is challenged with 10-100 colony forming units

<i>Salmonella nottingham</i>	NCTC 7832	Turbid growth
<i>Escherichia coli</i>	ATCC® 11775	Turbid growth

A satisfactory result is represented by visible growth.

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BUFFERED PEPTONE WATER (CM0509)		

Testing performed in accordance with ISO11133:2014

Reactions after incubation at $37 \pm 2^{\circ}\text{C}$ for 18 ± 2 hours

Medium is challenged with 10-100 colony forming units

<i>Salmonella typhimurium</i>	ATCC® 14028	WDCM 00031	Turbid growth
<i>Salmonella enteritidis</i>	ATCC® 13076	WDCM 00030	Turbid growth
<i>Escherichia coli</i>	ATCC® 8739	WDCM 00012	Turbid growth
<i>Escherichia coli</i>	ATCC® 25922	WDCM 00013	Turbid growth

A satisfactory result is represented by visible growth from an inoculum of 10-100 colony forming units.


Testing performed in accordance with ISO22964:2017

Reactions after incubation at $36 \pm 2^{\circ}\text{C}$ for 18 ± 2 hours

Medium is challenged with 10-100 colony forming units

<i>Cronobacter sakazakii</i>	ATCC® 29544	WDCM 00214	Turbid growth
<i>Cronobacter muytjensii</i>	ATCC® 51329	WDCM 00213	Turbid growth

A satisfactory result is represented by visible growth from an inoculum of 10-100 colony forming units.

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BUFFERED PEPTONE WATER (CM0509)		

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire document	Update to new template and addition of ISO22964:2017 section	Change control	BT-CC-1531

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BORDETELLA SELECTIVE SUPPLEMENT**SR0082E****Formula**

Vial contents (each vial is sufficient to supplement 500ml of medium)

Cephalexin	20.0 mg
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Description

A freeze-dried selective supplement for the isolation of *Bordetella* species.

Directions

Aseptically add 2ml of sterile distilled water to 1 vial and mix gently to dissolve. Aseptically add the vial contents to 500ml of sterile Charcoal Agar (CM0119) prepared as directed, cooled to 50°C and enriched with 10% v/v Horse Blood (SR0050). Mix well and pour into sterile Petri dishes. The vial contents may also be added to half strength Charcoal Agar (CM0119) enriched with 10% v/v Horse Blood (SR0050), for use as a transport medium for *Bordetella pertussis*.

Physical Characteristics

White pellet

Sterility - passes test

Microbiological Tests Using Optimum Inoculum Dilution

Tested in Charcoal Agar CM0119 enriched with 10% v/v horse blood

Reactions after incubation at 37°C for up to 5 days

<i>Bordetella pertussis</i>	NCTC 8605	0.25-1mm grey colonies
<i>Bordetella pertussis</i>	ATCC® 8467	ppt-1mm grey colonies
<i>Bordetella pertussis</i>	ATCC® 12742	0.25-1mm grey colonies
<i>Bordetella parapertussis</i>	NCTC 10521	0.25-1mm grey colonies
<i>Haemophilus influenzae</i>	ATCC® 35056	No growth
<i>Staphylococcus aureus</i>	ATCC® 25923	No growth
<i>Klebsiella pneumoniae</i>	ATCC® 13883	No growth

Bordetella species should be incubated in a moist atmosphere.

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OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION		
VITOX SR0090A		

VITOX

SR0090A

Formula

Vial contents (each vial is sufficient for 500ml of medium)

SR0090B Vitox Rehydration Fluid

Distilled water	10.0 ml
Glucose	1.0 g

SR0090C Vitox

Vitamin B ₁₂	0.1 mg
Adenine	10.0 mg
L-Glutamine	100.0 mg
Guanine	0.3 mg
p-Aminobenzoic acid	0.13 mg
L-Cystine	11.0 mg
NAD (Coenzyme 1)	2.5 mg
Coccarboxylase	1.0 mg
Iron (III) nitrate	0.2 mg
Thiamine hydrochloride	0.03 mg
Cysteine hydrochloride	259.0 mg

Description

A chemically-defined growth supplement recommended for general enrichment of culture media.

Directions

Aseptically add 1 vial of Vitox Rehydration Fluid (SR0090B) to 1 vial of Vitox (SR0090C). Mix gently to dissolve. Aseptically add the vial contents to 1 litre (1% v/v) or 500ml (2% v/v) of sterile medium of choice cooled to 50°C. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Pink pellet
 Rehydration fluid - colourless
 Sterility - passes test

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: GC Agar Base with the addition of Vitox and Soluble Haemoglobin

Tested in GC Agar Base CM0367 with the addition of Soluble Haemoglobin Powder LP0053

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VITOX SR0090A		

Reactions after incubation at 37°C for 24 hours in 10% CO₂ atmosphere


Medium is challenged with 10-100 colony-forming units

<i>Neisseria gonorrhoeae</i>	ATCC® 43069	Pinpoint-1mm straw/brown colonies
<i>Neisseria gonorrhoeae</i>	ATCC® 19424	Pinpoint-1mm straw/brown colonies
<i>Neisseria meningitidis</i>	ATCC® 13077	Pinpoint-1mm straw/brown colonies
<i>Neisseria meningitidis</i>	ATCC® 13090	Pinpoint-1mm straw/brown colonies
<i>Haemophilus influenzae</i>	ATCC® 10211	Pinpoint-1mm straw/brown colonies

Reactions after incubation at 37°C for 48 hours in 10% CO₂ atmosphere

<i>Neisseria gonorrhoeae</i>	ATCC® 43069	0.5-3mm straw/brown colonies
<i>Neisseria gonorrhoeae</i>	ATCC® 19424	0.5-3mm straw/brown colonies
<i>Neisseria meningitidis</i>	ATCC® 13077	0.5-3mm straw/brown colonies
<i>Neisseria meningitidis</i>	ATCC® 13090	0.5-3mm straw/brown colonies
<i>Haemophilus influenzae</i>	ATCC® 10211	0.5-5mm straw/brown colonies

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

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VITOX SR0090A		

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Directions	Removal of the word 'sterile'	Change control	MBD-2022-0351