OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MILK PLATE COUNT AGAR CM0681

MILK PLATE COUNT AGAR **CM0681**
(Plate Count Agar with antibiotic free skim milk powder)

Typical Formula*

Tryptone	grams per litre	5.0
Yeast extract		2.5
Glucose		1.0
Antibiotic free skim milk		1.0
Agar		10.0

* adjusted as required to meet performance standards

Directions

Suspend 19.5g 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 or hold at 45°C when using the pour plate technique.

Physical Characteristics

Straw, free-flowing powder
Colour on reconstitution - straw 1-2
Moisture level - less than 7%
pH 6.9 ± 0.1 at 25°C
Molten clarity - clear or slight haze
Gel strength - firm, comparable to 10.0g/litre of agar

Thermophiles and mesophiles shall be absent after incubation at 55°C and 37°C for 3 days.

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Tryptone Soya Agar

Inoculation using pour plate technique

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

Medium is challenged with 10-100 colony-forming units

Staphylococcus aureus	ATCC® 6538	0.5-2mm straw colonies

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

Digitally signed by Lazari Cristina
Date: 2024.04.17 14:17:55 EEST
Reason: MoldSign Signature
Location: Moldova

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MILK PLATE COUNT AGAR CM0681

Testing performed in accordance with ISO11133:2014

Reactions after incubation at 30 ± 2°C for 72 ± 3 hours

Pour plate technique

Medium is challenged with 50-120 colony forming units

Escherichia coli	ATCC® 25922	WDCM00013	1-3mm straw colonies
Escherichia coli	ATCC® 8739	WDCM00012	1-3mm straw colonies
Staphylococcus aureus	ATCC® 25923	WDCM00034	0.5-2mm straw colonies
Bacillus subtilis	ATCC® 6633	WDCM00003	0.5-2mm straw colonies

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

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MILK PLATE COUNT AGAR CM0681

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-1217

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

CAMPYLOBACTER BLOOD-FREE SELECTIVE AGAR BASE CM0739

CAMPYLOBACTER BLOOD-FREE SELECTIVE AGAR BASE **CM0739**

Typical Formula*

Nutrient Broth No. 2	grams per litre	25.0
Activated carbon		4.0
Casein hydrolysate		3.0
Sodium desoxycholate		1.0
Iron (II) sulphate		0.25
Sodium pyruvate		0.25
Agar		12.0

*adjusted to meet performance standards

Directions

Suspend 22.75g in 500ml of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add the contents of 1 vial of CCDA Selective Supplement (SR0155E) reconstituted as directed. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Black, free-flowing powder
Colour on reconstitution - black
pH 7.4 ± 0.2 at 25°C
Clarity - opaque
Gel strength – firm, comparable to 12g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium : Columbia Blood Agar Base enriched with 7% v/v laked horse blood and Campylobacter Growth Supplement SR0232

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

Tested with the addition of CCDA Selective Supplement SR0155

Medium is challenged with 10-100 colony-forming units

Campylobacter jejuni	ATCC®33560	0.5-2mm grey colonies

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

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

Campylobacter lari	ATCC®35221	0.5-2mm grey colonies

For *Campylobacter lari* ATCC®35221, a satisfactory result is represented by growth and a positive diagnostic reaction in accordance with the specification.

Testing performed in accordance with ISO11133:2014

Reactions after incubation at 41.5 ± 2°C for 44 ± 4 hours

Medium is challenged with 50-120 colony-forming units

Campylobacter jejuni	ATCC®29428	WDCM00156	0.5-2mm grey colonies
Campylobacter jejuni	ATCC®33291	WDCM00005	0.5-2mm grey colonies
Campylobacter coli	ATCC®43478	WDCM00004	0.5-2mm grey colonies

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

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

Escherichia coli	ATCC®25922	WDCM00013	No growth
Escherichia coli	ATCC®8739	WDCM00012	No growth
Staphylococcus aureus	ATCC®25923	WDCM00034	No growth

Negative strains are inhibited.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

CAMPYLOBACTER BLOOD-FREE SELECTIVE AGAR BASE CM0739

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Physical Characteristics	Removal of moisture value	Change control	BT-CC-1617
Microbiological Characteristics	Change of testing for *Campylobacter lari* ATCC®35221 changed from low number quantitative to high number qualitative testing.	Change control	BT-CC-2939

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MAXIMUM RECOVERY DILUENT CM0733

MAXIMUM RECOVERY DILUENT **CM0733**

Typical Formula*

Peptone	grams per litre	1.0
Sodium chloride		8.5

* adjusted as required to meet performance standards

Directions

Dissolve 9.5g in 1 litre of distilled water. Dispense into final containers and sterilize by autoclaving at 121°C for 15 minutes.

Physical Characteristics

Straw, free-flowing powder
Colour on reconstitution - colourless
Moisture level - less than or equal to 7%
pH 7.0 ± 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.

Tested as a diluent

Inoculate 9ml of the medium with 1ml of the test organism containing greater than or equal to 2E+04 cfu/ml. At time zero (0 minutes) and after holding at 20-25°C for 45 minutes to 1 hour, subculture onto control medium.

Anaerobic incubation at 37 ± 2°C for 18 ± 2 hours

Medium is challenged with 20-120 colony-forming units (cfu)

Clostridium perfringens	ATCC®13124	2-4mm grey colonies

A satisfactory result is represented by recovery of ± 30% of the Control cfu (0 minutes) after holding at 20-25°C for 45 minutes.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MAXIMUM RECOVERY DILUENT CM0733

Testing performed in accordance with ISO11133:2014

Reactions after incubation at 37 ± 2°C for 18 ± 2 hours

Medium is challenged with 50-150 colony-forming units

Escherichia coli	ATCC®8739	WDCM00012	1-2mm white/grey colonies
Escherichia coli	ATCC®25922	WDCM00013	1-2mm white/grey colonies
Staphylococcus aureus	ATCC®25923	WDCM00034	0.5-1mm white/grey colonies

A satisfactory result is represented by recovery of ± 30% of the Control cfu (0 minutes) after holding at 20-25°C for 45 minutes.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MAXIMUM RECOVERY DILUENT CM0733

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-1268
Entire Document	Update to new document format and correction of typographical/minor errors. Removal of Oxoid Manual	Change control	BT-CC-2263

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

CAMPYLOBACTER BLOOD-FREE SELECTIVE AGAR BASE CM0739

CAMPYLOBACTER BLOOD-FREE SELECTIVE AGAR BASE **CM0739**

Typical Formula*

Nutrient Broth No. 2	grams per litre	25.0
Activated carbon		4.0
Casein hydrolysate		3.0
Sodium desoxycholate		1.0
Iron (II) sulphate		0.25
Sodium pyruvate		0.25
Agar		12.0

*adjusted to meet performance standards

Directions

Suspend 22.75g in 500ml of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add the contents of 1 vial of CCDA Selective Supplement (SR0155E) reconstituted as directed. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Black, free-flowing powder
Colour on reconstitution - black
pH 7.4 ± 0.2 at 25°C
Clarity - opaque
Gel strength – firm, comparable to 12g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium : Columbia Blood Agar Base enriched with 7% v/v laked horse blood and Campylobacter Growth Supplement SR0232

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

Tested with the addition of CCDA Selective Supplement SR0155

Medium is challenged with 10-100 colony-forming units

Campylobacter jejuni	ATCC®33560	0.5-2mm grey colonies

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

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

Campylobacter lari	ATCC®35221	0.5-2mm grey colonies

For *Campylobacter lari* ATCC®35221, a satisfactory result is represented by growth and a positive diagnostic reaction in accordance with the specification.

Testing performed in accordance with ISO11133:2014

Reactions after incubation at 41.5 ± 2°C for 44 ± 4 hours

Medium is challenged with 50-120 colony-forming units

Campylobacter jejuni	ATCC®29428	WDCM00156	0.5-2mm grey colonies
Campylobacter jejuni	ATCC®33291	WDCM00005	0.5-2mm grey colonies
Campylobacter coli	ATCC®43478	WDCM00004	0.5-2mm grey colonies

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

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

Escherichia coli	ATCC®25922	WDCM00013	No growth
Escherichia coli	ATCC®8739	WDCM00012	No growth
Staphylococcus aureus	ATCC®25923	WDCM00034	No growth

Negative strains are inhibited.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

CAMPYLOBACTER BLOOD-FREE SELECTIVE AGAR BASE CM0739

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Physical Characteristics	Removal of moisture value	Change control	BT-CC-1617
Microbiological Characteristics	Change of testing for *Campylobacter lari* ATCC®35221 changed from low number quantitative to high number qualitative testing.	Change control	BT-CC-2939

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

LISTERIA SELECTIVE AGAR BASE (OXFORD FORMULATION) CM0856

LISTERIA SELECTIVE AGAR BASE (OXFORD FORMULATION) **CM0856**

Typical Formula*

	grams per litre
Columbia Blood Agar Base	39.0
Aesculin	1.0
Ferric ammonium citrate	0.5
Lithium chloride	15.0

* adjusted as required to meet performance standards

Directions

Suspend 27.75g in 500ml of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add the contents of 1 vial of Listeria Selective Supplement (SR0206E or SR0140E) reconstituted as directed. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Straw, free-flowing powder
Colour on reconstitution - pale green
Moisture level - less than or equal to 7%
pH - 7.0 ± 0.2 at 25°C
Clarity - clear
Gel strength - firm, comparable to 10.0g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Columbia Blood Agar Base enriched with 5% v/v horse blood

Reactions after incubation at 37°C for 48 hours

Tested with the addition of Listeria Selective Supplement (Oxford Formulation) SR0140

Medium is challenged with 10-100 colony-forming units

Listeria monocytogenes	ATCC®7644	0.25-1.0mm brown/black dimpled colonies and halo
Listeria monocytogenes	ATCC®13932	0.25-1.0mm brown/black dimpled colonies and halo

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

LISTERIA SELECTIVE AGAR BASE (OXFORD FORMULATION) CM0856

Medium is challenged with 10-100 colony-forming units

Staphylococcus aureus	ATCC®25923	No growth or pinpoint-1.5mm yellow colonies

Staphylococcus aureus ATCC®25923 is inhibited or shall produce a negative diagnostic reaction from an inoculum of 10-100 cfu

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

Enterococcus faecalis	ATCC®29212	No growth
Enterococcus faecalis	ATCC®19433	No growth
Escherichia coli	ATCC®25922	No growth
Escherichia coli	ATCC®8739	No growth
Candida albicans	ATCC®10231	No growth or minimal growth

Negative strains are inhibited. *Candida albicans* ATCC®10231 shall be inhibited or produce pinpoint colourless colonies with no blackening of the media.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

LISTERIA SELECTIVE AGAR BASE (OXFORD FORMULATION) CM0856

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological characteristics	Change to *Staphylococcus aureus* growth characteristics	Change control	MOC-2022-0180

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

RAPPAPORT-VASSILIADIS SOYA PEPTONE (RVS) BROTH CM0866

RAPPAPORT-VASSILIADIS SOYA PEPTONE (RVS) BROTH **CM0866**

Typical Formula*

Soya peptone	grams per litre	4.5
Sodium chloride		7.2
Potassium dihydrogen phosphate		1.26
Di-potassium hydrogen phosphate		0.18
Magnesium chloride (anhydrous)		13.58
Malachite green		0.036

* adjusted as required to meet performance standards

Directions

Suspend 26.75 g in 1 litre of distilled water. Heat gently until dissolved completely. Mix well and distribute into final containers. Sterilize by autoclaving at 115°C for 15 minutes. This medium is very hygroscopic and must be protected from moisture.

Physical Characteristics

Straw/green, free-flowing coarse powder
Colour on reconstitution - blue
Moisture level - less than 7%
pH 5.2 ± 0.2 at 25°C
Clarity - clear

Microbiological Tests Using Optimum Inoculum Dilution

Control Media: Tryptone Soya Agar and XLD Medium

Reactions after incubation at 41 ± 2°C for 24 ± 3 hours

Inoculation with pure cultures

Inoculate 10ml quantities of medium to achieve 1-15 colony-forming units/ml (cfu/ml). Incubate broths at 41 ± 2°C for 24 ± 3 hours. After incubation, subculture onto Tryptone Soya Agar (CM0131) and incubate plates at 37 ± 2°C for 24 ± 3 hours.

Salmonella nottingham	NCTC 7832	1-3mm straw colonies
Salmonella abony	NCTC 6017	1-3mm straw colonies
Salmonella poona	NCTC 4840	1-3mm straw colonies

A satisfactory result is represented by recovery of *Salmonella* strains equal to or greater than a 4 log (10) increase.

Inoculate 10ml quantities of medium to achieve 1E+02 to 1E+04 cfu/ml. Incubate broths at 41 ± 2°C for 24 ± 3 hours. After incubation, subculture onto Tryptone Soya Agar (CM0131) and incubate plates at 37 ± 2°C for 24 ± 3 hours.

Staphylococcus aureus	ATCC® 6538	No growth

Negative strains are inhibited or shall produce at least a 2 log (10) reduction.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

RAPPAPORT-VASSILIADIS SOYA PEPTONE (RVS) BROTH CM0866

Testing performed in accordance with ISO11133:2014

Reactions after incubation at 41.5 ± 2°C for 24 ± 3 hours

Inoculation with mixed cultures

Inoculate 10ml quantities of medium to achieve 1-10 cfu/ml of *Salmonella* species, to each add 1E+03 to 1E+04 cfu/ml of *Escherichia coli* and *Pseudomonas aeruginosa*. Incubate broths at 41 ± 2°C for 24 ± 3 hours. After incubation, subculture onto XLD Medium (CM0469) and incubate plates at 37 ± 2°C for 24 ± 3 hours.

Salmonella typhimurium	ATCC® 14028	WDCM00031	1-2mm red colonies, black centre
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Pseudomonas aeruginosa*	ATCC® 27853	WDCM00025	No growth
Salmonella typhimurium	ATCC® 14028	WDCM00031	1-2mm red colonies, black centre
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Pseudomonas aeruginosa*	ATCC® 27853	WDCM00025	No growth
Salmonella enteritidis	ATCC® 13076	WDCM00030	1-2mm red colonies, black centre
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Pseudomonas aeruginosa*	ATCC® 27853	WDCM00025	No growth
Salmonella enteritidis	ATCC® 13076	WDCM00030	1-2mm red colonies, black centre
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Pseudomonas aeruginosa*	ATCC® 27853	WDCM00025	No growth

A satisfactory result is represented by recovery of >100 cfu of *Salmonella* species on XLD Medium (CM0469).

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

RAPPAPORT-VASSILIADIS SOYA PEPTONE (RVS) BROTH CM0866

Inoculation with pure cultures

Inoculate 10ml quantities of medium to achieve 1E+03 to 1E+04 cfu/ml of *Escherichia coli* and *Enterococcus faecalis*. Incubate broths at 41 ± 2°C for 24 ± 3 hours. After incubation, subculture onto Tryptone Soya Agar (CM0131) and incubate plates at 37 ± 2°C for 24 ± 3 hours.

Escherichia coli	ATCC® 8739	WDCM00012	No growth or 1-3mm cream colonies
Escherichia coli	ATCC® 25922	WDCM00013	No growth or 1-3mm cream colonies
Enterococcus faecalis	ATCC® 19433	WDCM00009	No growth or 0.5-1mm straw colonies
Enterococcus faecalis	ATCC® 29212	WDCM00087	No growth or 0.5-1mm straw colonies

A satisfactory result is represented by growth of ≤100 cfu for *Escherichia coli* and <10 cfu for *Enterococcus faecalis* on Tryptone Soya Agar (CM0131).

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

RAPPAPORT-VASSILIADIS SOYA PEPTONE (RVS) BROTH CM0866

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-1411

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER BROTH BASE (ISO) (CM0895)

FRASER BROTH BASE (ISO) CM0895

Typical Formula*

Proteose peptone	grams per litre	5.0
Tryptone		5.0
Meat extract		5.0
Yeast extract		5.0
Sodium chloride		20.0
Di-sodium hydrogen phosphate		12.0
Potassium dihydrogen phosphate		1.35
Aesculin		1.0
Lithium chloride		3.0

* adjusted as required to meet performance standards

Directions

To make Half Fraser Broth
Dissolve 12.9g in 225ml of distilled water. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add the contents of 1 vial of Half Fraser Selective Supplement (SR0166E) reconstituted as directed. Mix well and dispense into sterile containers.

Alternatively, dissolve 129.2g in 2.25 litres of distilled water. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add the contents of 1 vial of Half Fraser Selective Supplement (SR0166G) reconstituted as directed. Mix well and dispense into sterile containers.

To make Fraser Broth
Dissolve 28.7g in 500ml of distilled water. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add the contents of 1 vial of Fraser Selective Supplement (SR0156E) reconstituted as directed. Mix well and dispense into sterile containers.

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

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER BROTH BASE (ISO) (CM0895)

Microbiological Tests Using Optimum Inoculum Dilution

Control Media: Chromogenic Listeria Agar (CM1084) or Columbia Blood Agar Base (CM0331) enriched with 5% v/v horse blood, where appropriate.

Tested with the addition of Fraser Selective Supplement SR0156

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

Inoculate 10ml quantities of medium to achieve 1-10 colony-forming units/ml (cfu/ml) of *Listeria* spp. Incubate broths at 37 ± 2°C for 24 ± 2 hours. Subculture onto Chromogenic Listeria Agar (ISO) (CM1084 + SR0226 & SR0228) and incubate plates at 37 ± 2°C for 24 - 48 hours.

Listeria monocytogenes	ATCC® 7644
Listeria monocytogenes	ATCC® 13932

A satisfactory result is represented by recovery of positive strains equal to or greater than a 3 log(10) increase.

Positive strains shall produce aesculin hydrolysis after 48 hours.

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

Inoculate 10ml quantities of medium to achieve 1E+03 to 1E+04 cfu/ml. Incubate broths at 37°C for 48 hours.

Bacillus cereus	ATCC® 10876	No aesculin hydrolysis (no blackening)

Negative strains shall produce no aesculin hydrolysis after 48 hours.

Testing performed in accordance with ISO11133:2014

Inoculation with mixed cultures

Inoculate 10ml quantities of medium to achieve 1 – 10 colony-forming units/ml (cfu/ml) of *Listeria spp.*, to each add 1E+02 to 1E+03 cfu/ml of *Escherichia coli* and 1E+02 to 1E+03 cfu/ml of *Enterococcus faecalis.* Incubate broths at 37 ± 2°C for 24 ± 2 hours. Subculture onto Chromogenic Listeria Agar (ISO) (CM1084 + SR0226 & SR0228) and incubate plates at 37 ± 2°C for 24 ± 2 hours

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER BROTH BASE (ISO) (CM0895)

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

Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth
Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth
Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth

A satisfactory result is represented by recovery of >10 cfu of *Listeria monocytogenes* on Chromogenic Listeria Agar (ISO) (CM1084).

Inoculation with pure cultures

Inoculate 10ml quantities of medium to achieve 1E+03 to 1E+04 colony-forming units/ml (cfu/ml) of *Escherichia coli* and *Enterococcus faecalis.* Incubate broths at 37 ± 2°C for 24 ± 2 hours. Subculture onto Chromogenic Listeria Agar (ISO)) (CM1084 + SR0226 & SR0228) and Tryptone Soya Agar (CM0131) then incubate plates at 37 ± 2°C for 24 ± 2 hours.

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

Escherichia coli	ATCC® 8739	WDCM00012	No growth (CM1084)
Escherichia coli	ATCC® 8739	WDCM00012	Cream colonies (CM0131)
Escherichia coli	ATCC® 25922	WDCM00013	No growth (CM1084)
Escherichia coli	ATCC® 25922	WDCM00013	Cream colonies (CM0131)
Enterococcus faecalis	ATCC® 19433	WDCM00009	No growth (CM1084)
Enterococcus faecalis	ATCC® 19433	WDCM00009	Cream colonies (CM0131)
Enterococcus faecalis	ATCC® 29212	WDCM00087	No growth (CM1084)
Enterococcus faecalis	ATCC® 29212	WDCM00087	Cream colonies (CM0131)

A satisfactory result is represented by no growth of *Escherichia coli* and *Enterococcus faecalis* on Chromogenic Listeria Agar (ISO) (CM1084) and <100 cfu on Tryptone Soya Agar (CM0131).

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER BROTH BASE (ISO) (CM0895)

Revision History

Section / Step	Description of Change	Reason for Change	Reference
N/A	Update to ISO	Change control	BT-CC-1903

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ LISTERIA AGAR BASE (ISO) CM1212

BRILLIANCE™ LISTERIA AGAR BASE (ISO) **CM1212**

Typical Formula*

Enzymatic digest of animal tissues	grams per litre	18.0
Enzymatic digest of casein		6.0
Yeast extract		10.0
Sodium pyruvate		2.0
Glucose		2.0
Magnesium glycerophosphate		1.0
Magnesium sulphate (anhydrous)		0.5
Sodium chloride		5.0
Lithium chloride		10.0
Di-sodium hydrogen phosphate (anhydrous)		2.5
5-Bromo-4-chloro-3-indolyl-β-D-glucopyranoside		0.05
Agar		12.0

* adjusted as required to meet performance standards

Directions

Suspend 34.5g in 480ml of distilled water. Mix well and sterilize by autoclaving at 121°C for 15 minutes. Cool to 48°C. Aseptically add the contents of 1 vial of Brilliance™ Listeria Selective Supplement (ISO) (SR0257E) reconstituted as directed, and 1 vial of Brilliance™ Listeria Differential Supplement (ISO) (SR0258E) warmed to 48°C. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Straw, free-flowing powder
Colour on reconstitution - orange/brown
Moisture level - less than or equal to 7%
pH 7.2 ± 0.2 at 25°C
Clarity - clear
Gel strength - firm, comparable to 12.0g/litre of agar

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ LISTERIA AGAR BASE (ISO) CM1212

Microbiological Tests Using Optimum Inoculum Dilution

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

Tested with the addition of Brilliance™ Listeria Selective Supplement (ISO) SR0257 and Brilliance™ Listeria Differential Supplement (ISO) SR0258

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

Medium is challenged with 30-120 colony-forming units

Listeria monocytogenes	NCTC11994	0.5-2mm blue-green colonies with halo
Listeria monocytogenes	ATCC®7644	0.5-2mm blue-green colonies with halo

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

Reactions after incubation at 37 ± 2°C for 48 ± 4 hours

Medium is challenged with 30-120 colony-forming units

Listeria monocytogenes	NCTC11994	1-3mm blue-green colonies with halo
Listeria monocytogenes	ATCC®7644	1-3mm blue-green colonies with halo
Listeria ivanovii	NCTC12701	0.5-3mm blue-green colonies with or without halo

A satisfactory result is represented by recovery of positive strains equal to or greater than 70% of the control medium. For *Listeria ivanovii* NCTC12701, a satisfactory result is represented by recovery equal to or greater than 50% of the control medium.

Medium is challenged with 1E+04 to 1E+05 colony-forming units

Bacillus cereus	ATCC®10876	No growth or 1-2mm cream/blue colonies
Staphylococcus aureus	ATCC®25923	No growth or 0.5-1mm yellow colonies
Saccharomyces cerevisiae	ATCC®9763	No growth or 1-2mm cream/blue colonies

Negative strains are inhibited or shall produce at least a 2 log(10) reduction when compared to the control medium.

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

Proteus mirabilis	NCTC10975	No growth

Negative strains are inhibited.

Testing performed in accordance with ISO11133:2014

Table B.1
ISO Standard 11290-1:2017 tested with the addition of Brilliance™ Listeria Selective Supplement (ISO) SR0257 and Brilliance™ Listeria Differential Supplement (ISO) SR0258

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

Medium is challenged with 50-120 colony-forming units

Listeria monocytogenes	ATCC®13932	WDCM00021	0.5-2mm blue-green colonies with halo

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

Reactions after incubation at 37 ± 2°C for 48 ± 4 hours

Medium is challenged with 50-120 colony-forming units

Listeria monocytogenes	ATCC®13932	WDCM00021	1-3mm blue-green colonies with halo
Listeria monocytogenes	ATCC®35152	WDCM00109	1-3mm blue-green colonies with halo

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

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

Listeria innocua	ATCC®33090	WDCM00017	0.5-3mm blue-green colonies without halo

A satisfactory result is represented by good growth with a negative diagnostic reaction.

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

Escherichia coli	ATCC®25922	WDCM00013	No growth
Escherichia coli	ATCC®8739	WDCM00012	No growth
Enterococcus faecalis	ATCC®29212	WDCM00087	No growth
Enterococcus faecalis	ATCC®19433	WDCM00009	No growth

Negative strains are inhibited.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ LISTERIA AGAR BASE (ISO) CM1212

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Physical Characteristics	Clarity change from opaque to clear	Change control	MOC-2023-0118

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

LISTERIA SELECTIVE SUPPLEMENT (OXFORD FORMULATION) SR0140E

LISTERIA SELECTIVE SUPPLEMENT (OXFORD FORMULATION) **SR0140E**

Formula

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

Cycloheximide	200.0 mg
Colistin sulphate	10.0 mg
Acriflavine	2.5 mg
Cefotetan	1.0 mg
Fosfomycin	5.0 mg

Description

A selective supplement for the isolation of *Listeria monocytogenes*.

Directions

Aseptically add 5ml of 70% ethanol to 1 vial and mix gently to dissolve. Avoid frothing. Aseptically add the vial contents to 500ml of sterile Listeria Selective Agar Base (CM0856) prepared as directed and cooled to 50°C. Mix well and pour into sterile Petri dishes.

Physical Characteristics

Yellow powder/pellet
Sterility - passes test

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Columbia Blood Agar Base enriched with 5% v/v horse blood

Reactions after incubation at 37°C for 48 hours

Tested in Listeria Selective Agar Base CM0856

Medium is challenged with 10-100 colony-forming units

Listeria monocytogenes	ATCC®7644	0.25-1.0mm brown/black dimpled colonies and halo
Listeria monocytogenes	ATCC®13932	0.25-1.0mm brown/black dimpled colonies and halo

A satisfactory result is represented by recovery of positive strains equal to or greater than 50% of the control medium.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

LISTERIA SELECTIVE SUPPLEMENT (OXFORD FORMULATION) SR0140E

Medium is challenged with 10-100 colony-forming units

Staphylococcus aureus	ATCC®25923	No growth or pinpoint-1.5mm yellow colonies

Staphylococcus aureus ATCC®25923 is inhibited or shall produce a negative diagnostic reaction from an inoculum of 10-100 cfu.

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

Enterococcus faecalis	ATCC®29212	No growth
Enterococcus faecalis	ATCC®19433	No growth
Escherichia coli	ATCC®25922	No growth
Escherichia coli	ATCC®8739	No growth
Candida albicans	ATCC®10231	No growth or minimal growth

Negative strains are inhibited. *Candida albicans* ATCC®10231 shall be inhibited or produce pinpoint colourless colonies with no blackening of the media.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

LISTERIA SELECTIVE SUPPLEMENT (OXFORD FORMULATION) SR0140E

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological characteristics	Change to *Staphylococcus aureus* growth characteristics	Change control	MOC-2022-0180

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER SELECTIVE SUPPLEMENT SR0156E

FRASER SELECTIVE SUPPLEMENT SR0156E

Formula

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

Ammonium iron (III) citrate	250.0 mg
Nalidixic acid	10.0 mg
Acriflavine hydrochloride	12.5 mg

Description

A selective supplement for the detection of *Listeria monocytogenes*.

Directions

Aseptically add 5ml of 1:1 ethanol:sterile distilled water to 1 vial and mix gently to dissolve. Aseptically add the vial contents to 500ml of sterile Fraser Broth Base (CM0895) prepared as directed and cooled to 50°C. Mix well and aseptically dispense into sterile containers.

Physical Characteristics

Orange/green pellet
Sterility - passes test

Microbiological Tests Using Optimum Inoculum Dilution

Control Media: Chromogenic Listeria Agar (CM1084) or Columbia Blood Agar Base (CM0331) enriched with 5% v/v horse blood, where appropriate.

Tested with the addition of Fraser Selective Supplement SR0156

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

Inoculate 10ml quantities of medium to achieve 1-10 colony-forming units/ml (cfu/ml) of *Listeria* spp. Incubate broths at 37 ± 2°C for 24 ± 2 hours. Subculture onto Chromogenic Listeria Agar (ISO) (CM1084 + SR0226 & SR0228) and incubate plates at 37 ± 2°C for 24 - 48 hours.

Listeria monocytogenes	ATCC® 7644
Listeria monocytogenes	ATCC® 13932

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER SELECTIVE SUPPLEMENT SR0156E

A satisfactory result is represented by recovery of positive strains equal to or greater than a 3 log(10) increase.

Positive strains shall produce aesculin hydrolysis after 48 hours.

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

Inoculate 10ml quantities of medium to achieve 1E+03 to 1E+04 cfu/ml. Incubate broths at 37°C for 48 hours.

Bacillus cereus	ATCC® 10876	No aesculin hydrolysis (no blackening)

Negative strains shall produce no aesculin hydrolysis after 48 hours.

Testing performed in accordance with ISO11133:2014

Inoculation with mixed cultures

Inoculate 10ml quantities of medium to achieve 1 – 10 colony-forming units/ml (cfu/ml) of *Listeria spp.*, to each add 1E+02 to 1E+03 cfu/ml of *Escherichia coli* and 1E+02 to 1E+03 cfu/ml of *Enterococcus faecalis.* Incubate broths at 37 ± 2°C for 24 ± 2 hours. Subculture onto Chromogenic Listeria Agar (ISO) (CM1084 + SR0226 & SR0228) and incubate plates at 37 ± 2°C for 24 ± 2 hours

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

Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth
Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth
Listeria monocytogenes	ATCC® 13932	WDCM00021	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER SELECTIVE SUPPLEMENT SR0156E

Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 25922	WDCM00013	No growth
+ *Enterococcus faecalis*	ATCC® 19433	WDCM00009	No growth
Listeria monocytogenes	ATCC® 35152	WDCM00109	0.5-1.0mm blue colonies with halo
+ *Escherichia coli*	ATCC® 8739	WDCM00012	No growth
+ *Enterococcus faecalis*	ATCC® 29212	WDCM00087	No growth

A satisfactory result is represented by recovery of >10 cfu of *Listeria monocytogenes* on Chromogenic Listeria Agar (ISO) (CM1084).

Inoculation with pure cultures

Inoculate 10ml quantities of medium to achieve 1E+03 to 1E+04 colony-forming units/ml (cfu/ml) of *Escherichia coli* and *Enterococcus faecalis.* Incubate broths at 37 ± 2°C for 24 ± 2 hours. Subculture onto Chromogenic Listeria Agar (ISO)) (CM1084 + SR0226 & SR0228) and Tryptone Soya Agar (CM0131) then incubate plates at 37 ± 2°C for 24 ± 2 hours.

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

Escherichia coli	ATCC® 8739	WDCM00012	No growth (CM1084)
Escherichia coli	ATCC® 8739	WDCM00012	Cream colonies (CM0131)
Escherichia coli	ATCC® 25922	WDCM00013	No growth (CM1084)
Escherichia coli	ATCC® 25922	WDCM00013	Cream colonies (CM0131)
Enterococcus faecalis	ATCC® 19433	WDCM00009	No growth (CM1084)
Enterococcus faecalis	ATCC® 19433	WDCM00009	Cream colonies (CM0131)
Enterococcus faecalis	ATCC® 29212	WDCM00087	No growth (CM1084)
Enterococcus faecalis	ATCC® 29212	WDCM00087	Cream colonies (CM0131)

A satisfactory result is represented by no growth of *Escherichia coli* and *Enterococcus faecalis* on Chromogenic Listeria Agar (ISO) (CM1084) and <100 cfu on Tryptone Soya Agar (CM0131).

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

FRASER SELECTIVE SUPPLEMENT SR0156E

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire Document	Update to test specification	Change control	BT-CC-1533