OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

COLUMBIA BLOOD AGAR BASE (CM0331)

COLUMBIA BLOOD AGAR BASE **CM0331**

Typical Formula*

Special peptone	grams per litre	23.0
Soluble starch		1.0
Sodium chloride		5.0
Agar		10.0

* adjusted as required to meet performance standards

Directions

Suspend 39g 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. For blood agar, enrich with 5% v/v sterile defibrinated blood.

Physical Characteristics

Straw, free-flowing powder
Colour on reconstitution - straw 2-3
Moisture level - less than or equal to 7%
pH 7.3 ± 0.2 at 25°C
Clarity - clear
Gel strength - firm, comparable to 10.0g/litre of agar

The medium is tested for compatibility using 7% v/v oxalated horse blood, defibrinated horse blood and 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.

Microbiological Tests Using Optimum Inoculum Dilution

Control Medium: Columbia Blood Agar Base

Plain plates

Reactions after incubation at 37°C for 24 hours

Medium is challenged with 10-100 colony-forming units

Staphylococcus aureus ATCC 25923 1-2mm cream 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°C for 48 hours under anaerobic conditions

Medium is challenged with 10-100 colony-forming units

Clostridium sporogenes	ATCC®19404	1-2mm pale straw colonies
Clostridium sporogenes	ATCC®11437	1-2mm pale straw colonies

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

Enriched with 5% v/v horse blood

Reactions after incubation at 37°C for 24 hours

Medium is challenged with 10-100 colony-forming units

Streptococcus pyogenes	ATCC®19615	0.25-1mm pale straw colonies, β haemolysis
Streptococcus pneumoniae	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 at 37°C for 48 hours under microaerophilic conditions

Neisseria gonorrhoeae	NCTC11148	1-2mm grey/brown 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°C for 18 hours

Zones of growth/no growth surrounding X, V and X+V factor discs (DD0003, DD0004 and DD0005) when plain plates are inoculated with the following organisms and incubated at 37°C for 18 hours:

		X	**V**	**X+V**
Haemophilus influenzae	ATCC®49247	0	0	≥ 15mm
Haemophilus parainfluenzae	ATCC®33392	0	≥ 20mm	≥ 20mm

Reactions after incubation at 37°C for 18 hours

Zones of inhibition with Bacitracin discs (DD0002) shall be 10-20mm when 7% v/v horse blood plates are inoculated with *Streptococcus pyogenes* ATCC®19615 and incubated at 37°C for 18 hours.

Testing performed in accordance with ISO11133:2014

Enriched with 5% v/v sheep blood

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

Medium is challenged with 50-120 colony-forming units

Campylobacter jejuni	ATCC®29428	WDCM00156	1-3mm grey, mucoid colonies
Campylobacter jejuni	ATCC®33291	WDCM00005	1-3mm grey, mucoid colonies
Campylobacter coli	ATCC®43478	WDCM00004	1-3mm grey, mucoid colonies

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 current CLSI M22 A

Enriched with 5% v/v sheep blood

Reactions after incubation at 35°C for 18-24 hours

Medium is challenged with 1E+02 to 1E+04 colony-forming units

Streptococcus pyogenes	ATCC®19615	0.25-1mm pale straw colonies, β haemolysis
Streptococcus pneumoniae	ATCC®6305	0.5-1mm grey/green colonies, α haemolysis
Staphylococcus aureus	ATCC®25923	1-2mm cream colonies
Escherichia coli	ATCC®25922	1-3mm cream colonies

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

COLUMBIA BLOOD AGAR BASE (CM0331)

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Entire document	Update to new document format and correction of minor/typographical errors	N/A	N/A
Microbiological characteristics	Removal of obsolete BSAC testing	Change control	MOC-2022-0741

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MUELLER HINTON AGAR CM0337

MUELLER-HINTON AGAR **CM0337**

Typical Formula*

Beef, dehydrated infusion from	grams per litre	300.0
Casein hydrolysate		17.5
Soluble starch		1.5
Agar		17.0

* adjusted as required to meet performance standards

Directions

Suspend 38g 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 2-3
Moisture level - less than 7%
pH 7.3 ± 0.1 at 25°C
Clarity - clear
Gel strength - firm comparable to 17.0g/litre of agar

Microbiological Tests Using Optimum Inoculum Dilution

Antibiotic susceptibility tests are performed in accordance to, and meet the acceptance limits of the current ISO/TS 16782.

Staphylococcus aureus	ATCC® 25923	WDCM00034
Staphylococcus aureus	ATCC® 29213	WDCM00131
Staphylococcus aureus	ATCC® 43300	WDCM00211
Staphylococcus aureus	NCTC 12493	WDCM00212
Escherichia coli	ATCC® 25922	WDCM00013
Escherichia coli	ATCC® 35218	
Pseudomonas aeruginosa	ATCC® 27853	WDCM00025
Enterococcus faecalis	ATCC® 33186	WDCM00210
Enterococcus faecalis	ATCC® 29212	WDCM00087
Streptococcus pneumoniae	ATCC® 49619	
Haemophilus influenzae	ATCC® 49247	
Haemophilus influenzae	ATCC® 49766	

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

MUELLER HINTON AGAR CM0337

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological Tests	Update to organisms tested and WDCM references where applicable	Update to ISO/TS 16782 following change control	BT-CC-1322

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ CANDIDA AGAR BASE CM1002

BRILLIANCE™ CANDIDA AGAR BASE **CM1002**

Typical Formula*

Peptone	grams per litre	4.0
Chromogenic mix		13.6
Agar		13.6

* adjusted as required to meet performance standards

Directions

Suspend 15.6 grams in 500 ml of distilled water and add the contents of one vial of Brilliance™ Candida Selective Supplement (SR0231E), reconstituted as directed. Mix well and bring to the boil with frequent agitation. DO NOT AUTOCLAVE. Cool to 45°C, mix well and pour into sterile Petri dishes.

Physical Characteristics

Light straw, free-flowing powder
Colour on reconstitution - off white
Moisture level - less than or equal to 7%
pH - 6.0 ± 0.2 at 25°C
Clarity - opaque
Gel strength - firm, comparable to 13.6g/litre of agar

Microbiological Tests using Optimum Inoculum Dilution

Control Media: Tryptone Soya Agar or Sabouraud Dextrose Agar, where appropriate

Medium is challenged with 10-100 colony-forming units

Reactions after incubation at 30°C for 42-48 hours

Candida albicans	ATCC®10231	1-2mm green colonies
Candida albicans	ATCC®18804	1-2mm green colonies
Candida albicans	ATCC®2091	0.5-1mm green colonies
Candida tropicalis	ATCC®750	2-3mm dark blue colonies
Candida krusei	ATCC®6258	5-10mm dry, irregular, pink/brown colonies
Candida glabrata	NCPF3240	2-3mm beige/yellow colonies
Candida lusitaniae	NCPF3516	1.5-2.5mm brown colonies
Candida parapsilosis	ATCC®22019	0.5-1mm brown colonies

A satisfactory result is represented by recovery of positive strains equal to or greater than 70% of the control medium. For *Candida parapsilosis* (ATCC®22019) 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

Staphylococcus aureus	ATCC®25923	No growth
Escherichia coli	ATCC®25922	No growth
Pseudomonas aeruginosa	ATCC®27853	No growth

Negative strains are inhibited.

Mixed culture of *Candida albicans* (ATCC®18804) & *Candida tropicalis* (ATCC®750).
Differentiation shall be comparable to the standard after incubation at 30°C for 42-48 hours.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ CANDIDA AGAR BASE CM1002

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological characteristics	Change Candida lusitaniae NCPF3516 colony size from 2-3 mm to 1.5 -2.5 mm	Change control	MBD-2022-0167

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ CANDIDA SELECTIVE SUPPLEMENT SR0231E

BRILLIANCE™ CANDIDA SELECTIVE SUPPLEMENT **SR0231E**

Formula

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

Chloramphenicol	250.0 mg

Description

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

Directions

Aseptically add 5ml of 70% ethanol to one vial and mix gently to dissolve the contents completely. Add the vial contents to 500ml of Brilliance™ Candida Agar Base (CM1002) as directed. Mix well and bring to the boil with frequent agitation. DO NOT AUTOCLAVE. Cool to 45°C and pour into sterile Petri dishes.

Physical Characteristics

White, crystalline pellet

Microbiological Tests using Optimum Inoculum Dilution

Control Media: Tryptone Soya Agar or Sabouraud Dextrose Agar, where appropriate

Tested in Brilliance™ Candida Agar Base CM1002

Reactions after incubation at 30°C for 42-48 hours

Medium is challenged with 10-100 colony-forming units

Candida albicans	ATCC®10231	1-2mm green colonies
Candida albicans	ATCC®18804	1-2mm green colonies
Candida albicans	ATCC®2091	0.5-1mm green colonies
Candida tropicalis	ATCC®750	2-3mm dark blue colonies
Candida krusei	ATCC®6258	5-10mm dry, irregular pink/brown colonies
Candida glabrata	NCPF3240	2-3mm beige/yellow colonies
Candida lusitaniae	NCPF3516	1.5-2.5mm brown colonies
Candida parapsilosis	ATCC®22019	0.5-1mm brown colonies

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ CANDIDA SELECTIVE SUPPLEMENT SR0231E

A satisfactory result is represented by recovery of positive strains equal to or greater than 70% of the control medium. For *Candida parapsilosis* (ATCC®22019) 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

Staphylococcus aureus	ATCC®25923	No growth
Escherichia coli	ATCC®25922	No growth
Pseudomonas aeruginosa	ATCC®27853	No growth

Negative strains are inhibited.

Mixed culture of *Candida albicans* (ATCC®18804) & *Candida tropicalis* (ATCC®750)
Differentiation shall be comparable to the standard after incubation at 30°C for 42-48 hours.

OXOID QUALITY ASSURANCE PRODUCT SPECIFICATION

BRILLIANCE™ CANDIDA SELECTIVE SUPPLEMENT SR0231E

Revision History

Section / Step	Description of Change	Reason for Change	Reference
Microbiological characteristics	Change Candida lusitaniae NCPF3516 colony size from 2-3 mm to 1.5 -2.5 mm	Change control	MBD-2022-0167