

MEDIUM FORMULATIONS

The above media can be substituted by suitable analogues of variable origin. Instructions for the preparation of media are given as recommended by the Manufacturer.

1. NUTRIENT AGAR OR NUTRIENT BROTH

Prepare nutrient agar Oxoid CM0003 or BD213000 or nutrient broth Oxoid CM0001 according to manufacturer's instructions. Sterilise by autoclaving at 121°C for 15 minutes.

3. NUTRIENT AGAR WITH 3% NaCl

Nutrient agar (Oxoid CM0003), (BD213000)	23,0g
NaCl	30,g
Distilled water	1,0L

Sterilise by autoclaving at 121°C for 15 minutes.

9. BORDET GENGOU MEDIUM

Bordet Gengou Agar Base BD248200 with 1% proteose peptone BD211648 dissolved in 1% glycerol solution. Autoclave for 15 minutes at 121°C, cool to 45-50°C, and add sterile defibrinated rabbit blood for a final concentration of 15-20%.

10. Campylobacter MEDIUM

Prepare Campylobacter agar base BD214892 or Trypticase soy agar BD211043 according to manufacturer's instructions. Autoclave for 15 minutes at 121°C, cool to 45-50°C, and add 50 ml of room temperature sterile defibrinated sheep blood.

11. TRYPTICASE SOY AGAR

Prepare Trypticase soy agar BD211043 per manufacturing's instructions. Autoclave at 121°C for 15 minutes.

13. MRS MEDIUM

Prepare MRS broth Oxoid CM0359 or Lactobacilli MRS broth BD288130 according to manufacturer's instructions. Autoclave for 15 minutes at 121°.

16. LOWENSTEIN-JENSEN MEDIUM

Lowenstein-Jensen medium slants (BD 220908).

20. LOWENSTEIN-JENSEN WITHOUT GLYCEROL

Prepare Lowenstein-Jensen medium (BD 244420), but omit the glycerol.

22. BRAIN HEART INFUSION OR BRAIN HEART INFUSION AGAR

Prepare Brain heart infusion BD237500 or Brain heart infusion agar Oxoid CM0375 according to manufacturer's instructions.

23. ISP MEDIUM 2

Prepare ISP medium 2 (Yeast Malt Extract) BD 277010 according to manufacturer's instructions.

24. HEART INFUSION AGAR

Prepare Heart infusion agar (BD 244400) according to manufacturer's instructions.

26. RABBIT BLOOD AGAR

Prepare Blood agar base Oxoid CM0055 according to manufacturer's instructions. Autoclave for 15 minutes at 121°C, cool to 45-50°C, and add aseptically 5% sterile defibrinated rabbit blood . Dispense into sterile test tubes, slant.

27. COLUMBIA BLOOD AGAR

Prepare Columbia blood agar BD279240 or Columbia blood agar base Oxoid CM0331 according to manufacturer's instructions. Autoclave for 15 minutes at 121°C, cool to 45-50°C, and add sterile 5% defibrinated sheep blood.

28. Neurospora CULTURE AGAR

Yeast extract	5,0g
Proteose peptone No. 3 (BD 211684)	5,0g
Maltose	40,0g
Agar	15,0g
Distilled water	1,0L

Autoclave for 15 minutes at 121°C.

34. LEVINTHAL'S AGAR

Solution A:

Neopeptone BD216881	5,0 g
NaCl	2,5 g
Bacto-Beef Extract BD211520	5,0 g
Agar bacteriological (Agar No. 1) Oxoid LP0011	10,0 g
Distilled water	500,0 ml

Adjust pH to 7,6; sterilize at 121°C for 15 minutes and store in water bath at 55°C.

Solution B:

Brain Heart Infusion Oxoid CM0225	29,2 g
Distilled water	790,0 ml

Adjust to 7,6 pH; boil and add 80 ml of defibrinated sheep blood. While hot, filter through filter paper, sterilize by filtration and cool to 55°C. Pool equal part of solutions A and B, distribute into Petri dishes.

36. Photobacterium BROTH

Tryptone	5,0 g
Yeast Extract	2,5 g
NaCl	30,0 g
NH ₄ Cl	0,3 g
MgSO ₄ . 7 H ₂ O	0,3 g
FeCl ₃	0,01 g
CaCO ₃	1,0 g
K ₂ HPO ₄	3,0 g
Na glycerophosphate	23,5 g
Agar	15,0 g
Distilled water	1000,0 ml

Adjust pH to 7,2. Autoclave 15 minutes at 121°C.

50. RCM MEDIUM

Prepare Reinforced clostridial medium Oxoid CM0149 or BD218081 according to manufacturer's instructions. Sterilise by autoclaving at 121°C for 15 minutes.

51. ALKALINE-NUTRIENT AGAR

Prepare medium 1. After sterilization add sterile 1 M Na-sesquicarbonate solution (1 ml in 10 ml) to achieve a pH of 9,7.

Na-sesquicarbonate solution:

NaHCO ₃	4,2 g
Na ₂ CO ₃ anhydrous	5,3 g
Distilled water	100,0 ml

52. TRYPTICASE SOY AGAR WITH 5% GLYCEROL

Prepare Trypticase Soy Agar BD211043 per manufacturing's instructions. Add 50ml of glycerol per litre of medium. Autoclave at 121°C for 15 minutes.

53. COOKED MEAT MEDIUM

Use commercially available Cooked meat medium (Oxoid CM 0081; BD226730) and supplement medium with

5 g/l yeast extract

5 g/l K₂HPO₄

1 mg resazurin

Boil, cool, add 0,5 g/l cysteine and adjust pH to 7,0. Autoclave at 121°C for 15 minutes.

54. ENRICHED COOKED MEAT MEDIUM

To medium 53 add 0,4% glucose; 0,1% cellobiose; 0,1% maltose; and 0,1% soluble starch before adding cysteine.

55. PEPT-CARB-SOLUBLE STARCH

Solution A:

Peptone	5,0g
Yeast extract	5,0g
K ₂ HPO ₄	1,0g
MgSO ₄ . 7H ₂ O	0,2g
Soluble starch	20,0g
Agar	15,0g
Water	900,0ml

Solution B:

10% Na₂CO₃ solution 100,0ml

Autoclave the solutions separately at 115°C for 15 minutes, then mix Solutions A and B.

56. TRYPTICASE SOY AGAR WITH SHEEP BLOOD

Prepare Trypticase soy agar BD211043 per manufacturing's instructions. Autoclave at 121°C for 15 minutes, cool to 45-50°C, and add sterile 5% defibrinated sheep blood.

57. NUTRIENT AGAR WITH 0,5% NaCl

Nutrient agar Oxoid CM0003 or BD213000 23,0g

NaCl	0,5g
Distilled water	1,0 L

Autoclave at 121°C for 15 minutes.

58. Escherichia MEDIUM

Trypticase peptone (BD 211921)	6,0g
K ₂ HPO ₄	0,2g
FeSO ₄ · 7H ₂ O	5,0mg
MgSO ₄ · 7H ₂ O	0,2g
L-Asparagine	0,15g
Glycerol	2,0ml
Vitamin B ₁₂	0,4mg
Agar (if needed)	15,0g
Distilled water	1,0L

Adjust medium for final pH 7,2. Autoclave at 121°C for 15 minutes.

59. Escherichia MEDIUM WITH LYSINE

L-Lysine	0,1g
(NH ₄) ₂ SO ₄	1,5g
MgSO ₄	0,1g
CaCl ₂	0,01g
FeSO ₄ · 7H ₂ O	0,5mg
Glycerol	5,0ml
Agar	15,0g
KH ₂ PO ₄	3,0g
K ₂ HPO ₄	7,0g
Distilled water	1,0L

Adjust medium for final pH 7,1. Autoclave at 121°C for 15 minutes.

60. Escherichia MEDIUM III

K ₂ HPO ₄	7,0g
KH ₂ PO ₄	3,0g
Sodium citrate (anhydrous)	0,4g
MgSO ₄ · 7H ₂ O	0,1g
(NH ₄) ₂ SO ₄	0,1g
Glycerol	2,0ml
Casein hydrolysate	2,0g
Agar	15,0g
Distilled water	1,0L

Autoclave at 121°C for 15 minutes.

61. TYG MEDIUM

Trypticase peptone (BD 211921)	10,0g
Yeast extract (Oxoid LP0021, BD 212750)	1,0g
Glucose	1,0g
NaCl	8,0g
CaCl ₂ · 2H ₂ O	0,3g
Distilled water	1,0L

Autoclave at 121°C for 15 minutes.

62. LB MEDIUM

Tryptone (BD 211705)	10,0 g
Yeast extract (BD 212750)	5,0 g
NaCl	10,0 g
Distilled water	1,0L

Adjust pH to 7,0 and autoclave at 121°C for 15 minutes.

63. LB MEDIUM WITH STREPTOMYCIN

Tryptone (BD 211705)	10,0 g
Yeast extract (BD 212750)	5,0 g
NaCl	10,0 g
Streptomycin*	200,0mg
Distilled water	1,0L

Combine first three ingredients in 980 ml of water, adjust pH to 7,0 and autoclave at 121°C for 15 minutes.

Dissolve 200mg of streptomycin in 20 ml of water and to the cooled basal medium.

64. FALCIVIBRIO MEDIUM

Wilkins-Chalgren-Anaerobe-Broth (Oxoid CM0643) is supplemented with 0.3 g/l of L-cysteine and 1,0 mg/l of resazurin. Prepare the medium under 100% nitrogen gas. To the autoclaved medium add 50 ml/l of sterile serum (horse, bovine or lamb).

65. GC MEDIUM

Solution A

GC agar base (BD 212171, Oxoid CM0367)	36,0g
Agar (if needed)	5,0g
Distilled water	500,ml

Solution B

Dried bovine hemoglobin (BD 212392, Oxoid LP0053)	10,0g
Distilled water	500,0ml

Solution C

IsoVitalex enrichment (BD 211876) or Vitox (Oxoid SR0090)	10,0ml
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Autoclave solutions A and B separately at 121°C for 15 minutes. Cool to 50°C. Aseptically add solution B to solution A. Mix very well. Rehydrate IsoVitalex (or Vitox) according to package instructions and add aseptically to medium. Mix well.

66. NUTRIENT AGAR WITH DIHYDROSTREPTOMYCIN

To medium 1 add sufficient amount solution of dihydrostreptomycin to achieve a final concentration in the medium of 625 mcg/l.

67. Mobiluncus MEDIUM

To medium 54 add 10% of heat-inactivated rabbit serum.

68. Photobacterium MPY MEDIUM

Peptone, Bacto (BD 211677)	5,0g
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Yeast extract (BD 212750)	3,0g
NaCl	28,2g
MgSO ₄ . 7H ₂ O	6,9g
MgCl ₂ . 6H ₂ O	5,5g
CaCl ₂ . 2H ₂ O	1,5g
KCl	0,7g
Distilled water	1,0L

Adjust pH to 7,4. Autoclave at 121°C for 15 minutes.

69. MIDDLEBROOK AGAR

Middlebrook 7H10 (BD 262710)	19,0g
Glycerol	5,0ml
OADC Enrichment (BD 212240)	100,0ml
Distilled deionized water	900,0ml

Add 19 grams of dehydrated Middlebrook 7H10 Medium to 900 ml of water containing 5,0 ml of glycerol. Bring to a boil to dissolve and autoclave at 121°C for 10 minutes. Cool to 50 – 55°C. Aseptically add 100 ml of OADC Enrichment. Dispense as required.

70. MIDDLEBROOK 7H10 WITH STREPTOMYCIN

Prepare Middlebrook 7H10 Medium (BD 262710) according to manufacturer's instructions. Add dissolved streptomycin to achieve a concentration 100 mcg/ml.

71. ISP MEDIUM 4

Prepare ISP medium 4 (Inorganic Salts Starch agar) BD 277210 according to manufacturer's instructions.

72. RCM MEDIUM WITH SODIUM LACTATE

RCM medium 50 with sodium lactate (60% solution) at a concentration of 1,5%. Adjust final pH to 7,0.

73. MARINE AGAR 2216 OR MARINE BROTH 2216

Prepare Marine agar 2216 (BD 212185) or marine broth 2216 (BD 279110) according to manufacturer's instructions. Sterilise by autoclaving at 121°C for 15 minutes.

74. YM AGAR OR YM BROTH

Prepare Yeast Mold agar (BD 271210) or Yeast Mold broth (BD271120) according to manufacturer's instructions.

75. GLYCEROL AGAR

Blood agar base (BD 245400)	20,0g
Nutrient agar (Oxoid CM0003), (BD213000)	23,0g
Glycerol	60,0ml
Distilled water to	1,0L

Adjust pH to 7,3. Sterilise by autoclaving at 121°C for 15 minutes.

76. PROSKAUER-BECK MEDIUM

Monopotassium phosphate	5,0g
Asparagine	5,0g
Magnesium sulfate . 7H ₂ O	0,6g

Magnesium citrate	2,5g
Glycerol	20,0ml
Distilled water	1,0L

Dissolve above ingredients in order, being certain each compound is solubilized before the next is added. Adjust pH to 7,8 by the addition of 40% NaOH. Autoclave at 121°C for 15 minutes, after which the pH should be 7,4. Filter the medium to remove any precipitate, bottle in desired volumes, and autoclave again at 121°C for 15 minutes.

77. Micrococcus MEDIUM

Peptone	5,0g
Yeast extract	3,0g
Beef extract	1,5g
Glucose	1,0g
Agar	15,g
Distilled water	1,0L

Adjust pH to 7,4. Sterilise by autoclaving at 121°C for 15 minutes.

78. Todd-Hewitt MEDIUM BROTH

Prepare medium (BD 249240) according to manufacturer's instructions.

79. TOMATO JUICE, YEAST EXTRACT AND MILK

Filter canned tomatoes through paper. Leave overnight at 10°C. Adjust pH to 7,0.

Skim milk	100,0g
Tomato juice	100,0ml
Yeast extract	5,0g
Distilled water to	1,0l

Autoclave at 121°C for 15 minutes.

80. RCM MEDIUM WITH SODIUM LACTATE

RCM medium with sodium lactate (60% solution) at a concentration of 1,5%.
Adjust final pH to 7,0.