

Product information

Phosphate-Buffered Saline (PBS) is an isotonic, balanced salt solution containing Sodium chloride, Sodium phosphate and Potassium phosphate. PBS closely mimics the pH, osmolality, and ion concentrations of the human body. Since it is nontoxic to cells, it is extensively used for cell culture rinsing and other preparations that might leave a residue.

RBP017210 is formulated without Calcium and Magnesium for rinsing chelators from cell culture before dissociation.

Storage temperature	15-30°C
Shelf life	24 months

Composition

Components	Concentration (mg/L)
Potassium phosphate monobasic	2100
Sodium phosphate dibasic heptahydrate	7260
Sodium chloride	90000

Applications

PBS is widely used in cell culture, molecular biology and biochemistry applications as it can maintain physiological pH and osmolality which is crucial for preserving cell viability and function.

Quality Control

Appearance	Colourless, clear solution
pH at 1X	7.0-7.4
Osmolality at 1X	280-320 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 0.25 EU/ml

Note:

¹Sterility testing (bacterial and fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

Preparation Instructions

Aseptically dilute 10X PBS to 1X concentration using sterile cell culture grade water.

1X solution should have PH within the range of 7.0 – 7.4 . If not, the PH of the solution may require slight adjustment with sterile 1N HCl or 1N NaOH.

Once diluted , we recommend to use the 1X solution within a week .

Do not freeze 10X or 1X solutions. Salts may irreversibly precipitate.

RESOLVE BIOTECH PRIVATE LIMITED

📍 Office No.502, G-Wing, Lotus Corporate Park, Western Express Highway, Goregaon (East), Mumbai - 400 063

☎ +91.22.6689.2400 | 📠 +91.22.6689.2401 | ✉ sales@resolvebiotech.com | 🌐 www.happycells.bio

Product Information

Phosphate-Buffered Saline (PBS) is an isotonic, balanced salt solution containing Sodium chloride, Sodium phosphate and Potassium phosphate. PBS closely mimics the pH, osmolality and ion concentrations of the human body. Since it is nontoxic to cells, it is extensively used for cell culture rinsing and other preparations that might leave a residue.

RBP027401 is formulated without Calcium and Magnesium for rinsing chelators from cell culture before dissociation.

Storage temperature	15-30°C
Shelf life	24 months

Composition

Components	Concentration (mg/L)
Potassium phosphate monobasic	144
Sodium phosphate dibasic heptahydrate	795
Sodium chloride	9000

Applications

PBS is widely used in cell culture, molecular biology and biochemistry applications as it can maintain physiological pH and osmolality which is crucial for preserving cell viability and function.

Quality Control

Appearance	Colourless, clear solution
pH	7.2-7.6
Osmolality	280–320 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 0.25 EU/ml
Salt toxicity test ³	Pass
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility testing (bacterial and fungal) carried out in accordance with <USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Salt toxicity test: Cells used: U937 cells; 1 × 10⁴ cells/well are seeded in control (complete media, RPMI 1640 + 10% FBS) and test (PBS) in a 96-well plate (in triplicates) and incubated at 37°C in a CO2 incubator for 1 hour and 8 hours. Cells are counted at each time point and % viability determined. The viability of cells in the test (PBS) wells at 1 hour should be ≥ 90% of the complete media control and at 8 hours should be ≥ 75% of the complete media control to be acceptable.

⁴Mycoplasma test carried out using a real time PCR-based kit.

Product Information

Phosphate-Buffered Saline (PBS) is an isotonic, balanced salt solution containing Sodium chloride, Sodium phosphate and Potassium phosphate. PBS closely mimics the pH, osmolality and ion concentrations of the human body. Since it is nontoxic to cells, it is extensively used for cell culture rinsing and other preparations that might leave a residue.

RBP027410 is formulated without Calcium and Magnesium for rinsing chelators from cell culture before dissociation.

Storage temperature	15-30°C
Shelf life	24 months

Composition

Components	Concentration (mg/L)
Potassium phosphate monobasic	1440
Sodium phosphate dibasic heptahydrate	7950
Sodium chloride	90000

Applications

PBS is widely used in cell culture, molecular biology and biochemistry applications as it can maintain physiological pH and osmolality which is crucial for preserving cell viability and function.

Quality Control

Appearance	Colourless, clear solution
pH at 1X	7.2-7.6
Osmolality at 1X	280-320 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 0.25 EU/ml

Note:

¹Sterility testing (bacterial and fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

Preparation Instructions

Aseptically dilute 10X PBS to 1X concentration using sterile cell culture grade water.

1X solution should have PH within the range of 7.2 – 7.6 . If not, the PH of the solution may require slight adjustment with sterile 1N HCl or 1N NaOH.

Once diluted , we recommend to use the 1X solution within a week .

Do not freeze 10X or 1X solutions. Salts may irreversibly precipitate.

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+91.22.6689.2400 | +91.22.6689.2401 | sales@resolvebiotech.com | www.happycells.bio

Product Information

Dulbecco's Phosphate-Buffered Saline (DPBS) is an isotonic, balanced salt solution containing Sodium chloride, Sodium phosphate, Potassium phosphate and Potassium chloride. DPBS is designed mainly for maintaining the physiology and morphology of mammalian cells. This product lacks Calcium and Magnesium ions in its composition, ensuring that it does not inhibit trypsin activity.

RBDP0101 is formulated with Potassium chloride and without Calcium and Magnesium for rinsing chelators from cell culture before dissociation.

Storage temperature	15-30°C
Shelf life	24 months

Composition

Components	Concentration (mg/L)
Potassium phosphate monobasic	200
Sodium phosphate dibasic heptahydrate	2160
Sodium chloride	8000
Potassium chloride	200

Applications

DPBS is widely used in cell culture, molecular biology and biochemistry applications as it can maintain physiological pH and osmolality which is crucial for preserving cell viability and function.

Quality Control

Appearance	Colourless, clear solution
pH	7.0-7.6
Osmolality	260–320 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 0.25 EU/ml
Salt toxicity test ³	Pass
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility testing (bacterial and fungal) carried out in accordance with <USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Salt toxicity test: Cells used: U937 cells; 1 × 10⁴ cells/well are seeded in control and test (PBS) in a 96-well plate (in triplicates) and incubated at 37°C in a CO₂ incubator for 1 hour and 8 hours. Viability was determined at each time point. The viability of cells in the test wells at 1 hour should be ≥ 90% of the control and at 8 hours should be ≥ 75% of the control to be acceptable.

⁴Mycoplasma test carried out using a real time PCR-based kit.

Product Information

Dulbecco's Phosphate-Buffered Saline (DPBS) is an isotonic, balanced salt solution containing Sodium chloride, Sodium phosphate, Potassium phosphate and Potassium chloride. DPBS is designed mainly for maintaining the physiology and morphology of mammalian cells. This product lacks Calcium and Magnesium ions in its composition, ensuring that it does not inhibit trypsin activity.

RBDP0110 is formulated with Potassium chloride and without Calcium and Magnesium for rinsing chelators from cell culture before dissociation.

Storage temperature	15-30°C
Shelf life	24 months

Composition

Components	Concentration (mg/L)
Potassium phosphate monobasic	2000
Sodium phosphate dibasic heptahydrate	21600
Sodium chloride	80000
Potassium chloride	2000

Applications

DPBS is widely used in cell culture, molecular biology and biochemistry applications as it can maintain physiological pH and osmolality which is crucial for preserving cell viability and function.

Quality Control

Appearance	Colourless, clear solution
pH at 1X	7.0-7.6
Osmolality at 1X	260–320 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 0.25 EU/ml

Note:

¹Sterility testing (bacterial and fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

RESOLVE BIOTECH PRIVATE LIMITED

Product Information

Roswell Park Memorial Institute (RPMI) media are a series of media developed by Moore et al for the culture of human normal and neoplastic cells in vitro. RPMI-1640 is the most commonly used medium in the series. RPMI-1640 was developed as a refined version of earlier RPMI formulations (like RPMI-1630), with alterations to Amino acid concentrations and vitamin levels, and the use of a bicarbonate buffering system. The medium is typically supplemented with 5–20% Fetal bovine serum (FBS), although it is also capable of supporting certain cell types in serum-free conditions with appropriate supplementation. Our selection includes formulations with and without L-glutamine, as well as products without the pH indicator Phenol red, for estrogen-sensitive applications.

RBRPMI01 is a RPMI 1640 variant supplemented with Glucose, Glutamine, Sodium bicarbonate and Phenol red. The media is formulated without Sodium pyruvate and HEPES buffer.

Storage temperature	2-8°C, protect from light
Shelf life	12 months

Applications

RPMI 1640 Medium was originally developed to culture human leukemic cells in suspension and as a monolayer. It has also been widely used in fusion protocols and in the growth of hybrid cells. Properly supplemented with serum or an adequate serum replacement, RPMI 1640 allows the cultivation of many cell types, especially human lymphocytes, Jurkat cells, HeLa cells, bone marrow cells, hybridomas and carcinomas.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	270–310 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial Endotoxin Testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO2 environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

⁴Mycoplasma Test carried out using a Real Time PCR-based kit.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	10
L-Arginine monohydrochloride	200
L-Asparagine monohydrate	50
L-Aspartic acid	20
L-Cystine dihydrochloride	65
L-Glutamic acid	20
L-Glutamine	300
L-Histidine hydrochloride monohydrate	15
L-Hydroxyproline	20
L-Isoleucine	50
L-Leucine	50
L-Lysine hydrochloride	40
L-Methionine	15
L-Phenylalanine	15
L-Proline	20
L-Serine	30
L-Threonine	20
L-Tryptophan	5
L-Tyrosine disodium salt dihydrate	29
L-Valine	20
Vitamins	
Folic acid	1
Biotin	0.2
Choline chloride	3
D-Calcium pantothenate	0.25
I-Inositol	35
Niacinamide	1
Para-aminobenzoic acid	1
Pyridoxine hydrochloride	1
Riboflavin	0.2
Thiamine hydrochloride	1
Vitamin B12	0.005

Components	Concentration
Inorganic Salts	
Calcium nitrate tetrahydrate	100
Magnesium sulfate (anhyd.)	48.84
Potassium chloride	400
Sodium bicarbonate	2000
Sodium chloride	6000
Sodium phosphate dibasic (anhyd.)	800
Other Components	
Glutathione (reduced)	1
D-Glucose (Dextrose)	2000
Phenol red sodium salt	5

Product Information

Roswell Park Memorial Institute (RPMI) media are a series of media developed by Moore et al for the culture of human normal and neoplastic cells in vitro. RPMI-1640 is the most commonly used medium in the series. RPMI-1640 was developed as a refined version of earlier RPMI formulations (like RPMI-1630), with alterations to amino acid concentrations and vitamin levels, and the use of a bicarbonate buffering system. The medium is typically supplemented with 5–20% fetal bovine serum (FBS), although it is also capable of supporting certain cell types in serum-free conditions with appropriate supplementation. Our selection includes formulations with and without L- Glutamine, as well as products without the pH indicator phenol red, for estrogen-sensitive applications.

RBRPMI02, a RPMI 1640 variant supplemented with Glucose and Sodium bicarbonate. It is formulated without Sodium pyruvate, HEPES buffer, Phenol red and L-Glutamine.

Storage temperature	2-8°C, protect from light
Shelf life	18 months

Preparation Instructions

Aseptically add 10.3ml of 200mm L-Glutamine solution to 1 liter of medium

Applications

RPMI 1640 Medium was originally developed to culture human leukemic cells in suspension and as a monolayer. It has also been widely used in fusion protocols and in the growth of hybrid cells. Properly supplemented with serum or an adequate serum replacement, RPMI 1640 allows the cultivation of many cell types, especially human lymphocytes, Jurkat cells, HeLa cells, bone marrow cells, hybridomas and carcinomas.

Quality Control

Appearance	Colorless clear liquid
pH	7.0 -7.6
Osmolality	260–300 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

- ¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >
- ²Bacterial Endotoxin Testing carried out in accordance with < USP 85 >
- ³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO2 environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.
- ⁴Mycoplasma Test carried out using a Real Time PCR-based kit.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	10
L-Arginine monohydrochloride	200
L-Asparagine monohydrate	50
L-Aspartic acid	20
L-Cystine dihydrochloride	65.2
L-Glutamic acid	20
L-Histidine hydrochloride monohydrate	15
L-Hydroxyproline	20
L-Isoleucine	50
L-Leucine	50
L-Lysine hydrochloride	40
L-Methionine	15
L-Phenylalanine	15
L-Proline	20
L-Serine	30
L-Threonine	20
L-Tryptophan	5
L-Tyrosine disodium salt dihydrate	28.83
L-Valine	20
Vitamins	
Biotin	0.2
Choline chloride	3
D-Calcium pantothenate	0.25
Folic Acid	1
i-Inositol	35
Niacinamide	1
Para-aminobenzoic acid	1
Pyridoxine hydrochloride	1
Riboflavin	0.2
Thiamine hydrochloride	1
Vitamin B12	0.005

Components	Concentration (mg/L)
Inorganic Salts	
Calcium nitrate tetrahydrate	100
Magnesium sulfate (anhyd.)	48.84
Potassium chloride	400
Sodium bicarbonate	2000
Sodium chloride	6000
Sodium phosphate dibasic (anhyd.)	800
Other Components	
D-Glucose (Dextrose)	2000
Glutathione (reduced)	1

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Product Information

The original Eagle's Medium was developed in the 1950s and was formulated for the cultivation of chicken cells. However, the Dulbecco's modification is an enhanced supplementary formulation that boosts select amino acid and vitamin content by up to fourfold when compared to the original Eagle's medium. DMEM is not a complete medium on its own, as it is lacking necessary nutrients like proteins, lipids, or growth factors. Therefore, it must be supplemented with other components, such as Fetal bovine serum (FBS), Amino acids, and other nutrients to provide a complete and balanced growth environment for cells in culture. Our selection includes a range of Glucose concentrations, as well as formulations with and without L-Glutamine.

RBDMEM01 is supplemented with 4.5gm/L Glucose, L-Glutamine, Sodium bicarbonate and Phenol red. The media is formulated without Sodium pyruvate and HEPES.

Storage temperature	2-8°C, protect from light
Shelf life	12 months

Applications

In cell culture, DMEM is used as a medium to support the growth of different types of cells, including primary cells, stem cells, and transformed cells. The modified version of DMEM can also be used for various research applications such as drug discovery, tissue engineering, and the study of cell signaling pathways. also supports the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	320–360 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

⁴Mycoplasma test carried out using a real time PCR-based kit.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	30
L-Arginine hydrochloride	84
L-Cystine dihydrochloride	63
L-Glutamine	584
L-Histidine hydrochloride-monohydrate	42
L-Isoleucine	105
L-Leucine	105
L-Lysine hydrochloride	146
L-Methionine	30
L-Phenylalanine	66
L-Serine	42
L-Threonine	95
L-Tryptophan	16
L-Tyrosine disodium salt dihydrate	104
L-Valine	94
Vitamins	
Choline chloride	4
D-Calcium pantothenate	4
Folic acid	4
i-Inositol	7.2
Niacinamide	4
Pyridoxine hydrochloride	4
Riboflavin	0.4
Thiamine hydrochloride	4

Components	Concentration (mg/L)
Inorganic Salts	
Calcium chloride (anhyd.)	200
Ferric nitrate nonahydrate	0.1
Magnesium sulfate (anhyd.)	97.67
Potassium chloride	400
Sodium bicarbonate	3700
Sodium chloride	6400
Sodium phosphate monobasic monohydrate	125
Other Components	
D-Glucose (Dextrose)	4500
Phenol red sodium salt	15

Product Information

The original Eagle's Medium was developed in the 1950s and was formulated for the cultivation of chicken cells. However, the Dulbecco's modification is an enhanced supplementary formulation that boosts select Amino acid and vitamin content by up to fourfold when compared to the original Eagle's medium. DMEM is not a complete medium on its own, as it is lacking necessary nutrients like proteins, lipids, or growth factors. Therefore, it must be supplemented with other components, such as Fetal bovine serum (FBS), Amino acids, and other nutrients to provide a complete and balanced growth environment for cells in culture. Our selection includes a range of Glucose concentrations, as well as formulations with and without L-Glutamine.

RBDMEM02 is supplemented with 1gm/L Glucose, L-Glutamine, Sodium bicarbonate, Sodium pyruvate and Phenol red. The media is formulated without HEPES.

Storage temperature	2-8°C, protect from light
Shelf life	12 months

Applications

In cell culture, DMEM is used as a medium to support the growth of different types of cells, including primary cells, stem cells, and transformed cells. The modified version of DMEM can also be used for various research applications such as drug discovery, tissue engineering, and the study of cell signaling pathways. also supports the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	310–350 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

⁴Mycoplasma test carried out using a real time PCR-based kit.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	30
L-Arginine hydrochloride	84
L-Cystine dihydrochloride	63
L-Glutamine	584
L-Histidine hydrochloride-monohydrate	42
L-Isoleucine	105
L-Leucine	105
L-Lysine hydrochloride	146
L-Methionine	30
L-Phenylalanine	66
L-Serine	42
L-Threonine	95
L-Tryptophan	16
L-Tyrosine disodium salt dihydrate	104
L-Valine	94
Vitamins	
Choline chloride	4
D-Calcium pantothenate	4
Folic acid	4
i-Inositol	7.2
Niacinamide	4
Pyridoxine hydrochloride	4
Riboflavin	0.4
Thiamine hydrochloride	4

Components	Concentration (mg/L)
Inorganic Salts	
Calcium chloride (anhyd.)	200
Ferric nitrate nonahydrate	0.1
Magnesium sulfate (anhyd.)	97.67
Potassium chloride	400
Sodium bicarbonate	3700
Sodium chloride	6400
Sodium phosphate monobasic	125
Other Components	
D-Glucose (Dextrose)	1000
Phenol red sodium salt	15
Sodium pyruvate	110

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Product Information

The original Eagle's Medium was developed in the 1950s and was formulated for the cultivation of chicken cells. However, the Dulbecco's modification is an enhanced supplementary formulation that boosts select amino acid and vitamin content by up to fourfold when compared to the original Eagle's medium. DMEM is not a complete medium on its own, as it is lacking necessary nutrients like proteins, lipids, or growth factors. Therefore, it must be supplemented with other components, such as fetal bovine serum (FBS), Amino acids, and other nutrients to provide a complete and balanced growth environment for cells in culture. Our selection includes a range of glucose concentrations, as well as formulations with and without L-Glutamine.

RBDMEM03 is supplemented with 4.5gm/L Glucose and Sodium bicarbonate and Phenol red. The media is formulated without Sodium pyruvate, L-Glutamine and HEPES

Storage temperature	2-8°C, protect from light
Shelf life	18 months

Preparation Instructions

Aseptically add 20ml of 200mM L-Glutamine solution to 1 liter medium

Applications

In cell culture, DMEM is used as a medium to support the growth of different types of cells, including primary cells, stem cells, and transformed cells. The modified version of DMEM can also be used for various research applications such as drug discovery, tissue engineering, and the study of cell signaling pathways. also supports the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	320–360 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

⁴Mycoplasma test carried out using a real time PCR-based kit.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	30
L-Arginine hydrochloride	84
L-Cystine dihydrochloride	63
L-Histidine hydrochloride-monohydrate	42
L-Isoleucine	105
L-Leucine	105
L-Lysine hydrochloride	146
L-Methionine	30
L-Phenylalanine	66
L-Serine	42
L-Threonine	95
L-Tryptophan	16
L-Tyrosine disodium salt dihydrate	104
L-Valine	94
Vitamins	
Choline chloride	4
D-Calcium pantothenate	4
Folic Acid	4
i-Inositol	7.2
Niacinamide	4
Pyridoxine hydrochloride	4
Riboflavin	0.4
Thiamine hydrochloride	4

Components	Concentration (mg/L)
Inorganic Salts	
Calcium chloride (anhyd.)	200
Ferric nitrate nonahydrate	0.1
Magnesium sulfate (anhyd.)	97.67
Potassium chloride	400
Sodium bicarbonate	3700
Sodium chloride	6400
Sodium phosphate monobasic	125
Other Components	
D-Glucose (Dextrose)	4500
Phenol red sodium salt	15

Product Information

The original Eagle's Medium was developed in the 1950s and was formulated for the cultivation of chicken cells. However, the Dulbecco's modification is an enhanced supplementary formulation that boosts select amino acid and vitamin content by up to fourfold when compared to the original Eagle's medium. DMEM is not a complete medium on its own, as it is lacking necessary nutrients like proteins, lipids, or growth factors. Therefore, it must be supplemented with other components, such as Fetal bovine serum (FBS), Amino acids, and other nutrients to provide a complete and balanced growth environment for cells in culture. Our selection includes a range of Glucose concentrations, as well as formulations with and without L-Glutamine.

RBDMEM04 is supplemented with 4.5gm/L Glucose, L-Glutamine, Sodium bicarbonate and Phenol red. The media is formulated without HEPES.

Storage temperature	2-8°C, protect from light
Shelf life	12 months from manufacturing

Applications

In cell culture, DMEM is used as a medium to support the growth of different types of cells, including primary cells, stem cells, and transformed cells. The modified version of DMEM can also be used for various research applications such as drug discovery, tissue engineering, and the study of cell signaling pathways. also supports the growth of many different mammalian cells. Cells successfully cultured in DMEM include primary fibroblasts, neurons, glial cells, HUVECs, and smooth muscle cells, as well as cell lines such as HeLa, 293, Cos-7, and PC-12.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	320-360 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements

Note:

¹Sterility testing (bacterial and fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	30
L-Arginine hydrochloride	84
L-Cystine dihydrochloride	63
L-Glutamine	584
L-Histidine hydrochloride monohydrate	42
L-Isoleucine	105
L-Leucine	105
L-Lysine hydrochloride	146
L-Methionine	30
L-Phenylalanine	66
L-Serine	42
L-Threonine	95
L-Tryptophan	16
L-Tyrosine disodium salt dihydrate	104
L-Valine	94
Vitamins	
Choline chloride	4
D-Calcium pantothenate	4
Folic Acid	4
Niacinamide	4
Pyridoxine hydrochloride	4
Riboflavin	0.4
Thiamine hydrochloride	4
i-Inositol	7.2

Components	Concentration (mg/L)
Inorganic Salts	
Calcium Chloride (anhyd.)	200
Ferric nitrate nonahydrate	0.1
Magnesium Sulfate (anhyd.)	97.67
Potassium Chloride	400
Sodium bicarbonate	3700
Sodium Chloride	6400
Sodium Phosphate monobasic monohydrate	125
Other Components	
D-Glucose (Dextrose)	4500
Phenol red sodium salt	15
Sodium pyruvate	110

Product Information

DMEM/F-12 (Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12) is a widely used basal medium designed to support the growth of a broad range of mammalian cell types. It combines the high nutrient formulation of DMEM with the rich mix of supplements found in Ham's F-12, offering enhanced performance for culturing many adherent and suspension cells.

RBDMEMF01 is supplemented with 3.151gm/L glucose, L-alanyl-L-glutamine, sodium bicarbonate and Phenol red. The media is formulated without Sodium Pyruvate and HEPES.

Storage temperature	2-8°C, protect from light
Shelf life	18 months

Applications

DMEM/F-12 is a nutrient-rich basal medium extensively utilized in cell biology research and biotechnological applications . DMEM/F-12 is employed for the culture of a variety of adherent and suspension cell types, including epithelial cells, fibroblasts, glial cells, and transformed cell lines. It is particularly suitable for cells with high nutrient demands due to its enhanced formulation combining the strengths of DMEM and Ham's F-12.

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	290–330 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements
Mycoplasma contamination ⁴	Negative

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.

⁴Mycoplasma test carried out using a real time PCR-based kit.

DMEM/F12

1:1 mixture

Dulbecco's Modified Eagle Medium /
Nutrient Mixture F-12 Ham's
w/ 17.5mM Glucose, 2.5mM L-alanyl-L-Glutamine
and Phenol red
w/o HEPES and Sodium pyruvate

Composition

Components	Concentration (mg/L)
Amino Acids	
Glycine	18.75
L-Alanine	4.45
L-Alanyl-L-Glutamine	542
L-Arginine hydrochloride	147.5
L-Asparagine monohydrate	7.5
L-Aspartic acid	6.65
L-Cysteine hydrochloride monohydrate	17.56
L-Cystine dihydrochloride	31.29
L-Glutamic acid	7.35
L-Histidine hydrochloride-monohydrate	31.48
L-Isoleucine	54.47
L-Leucine	59.05
L-Lysine hydrochloride	91.25
L-Methionine	17.24
L-Phenylalanine	35.48
L-Proline	17.25
L-Serine	26.25
L-Threonine	53.45
L-Tryptophan	9.02
L-Tyrosine disodium salt dihydrate	55.79
L-Valine	52.85
Vitamins	
Biotin	0.0035
Choline chloride	8.98
D-Calcium pantothenate	2.24
Folic acid	2.65
i-Inositol	12.6
Niacinamide	2.02
Pyridoxine hydrochloride	2.031
Riboflavin	0.219
Thiamine hydrochloride	2.17
Vitamin B12	0.68

Components	Concentration (mg/L)
Inorganic Salts	
Calcium chloride (anhyd.)	116.6
Cupric sulfate pentahydrate	0.0013
Ferric nitrate nonahydrate	0.05
Ferric sulfate heptahydrate	0.417
Magnesium chloride (anhyd.)	28.64
Magnesium sulfate (anhyd.)	48.84
Potassium chloride	311.8
Sodium bicarbonate	2438
Sodium chloride	6999.5
Sodium phosphate dibasic (anhyd.)	71.02
Sodium phosphate monobasic - monohydrate	62.5
Zinc sulfate heptahydrate	0.432
Other Components	
D-Glucose (Dextrose)	3151
Hypoxanthine sodium salt	2.39
Linoleic acid	0.042
Lipoic acid	0.105
Phenol red sodium salt	8.1
Putrescine dihydrochloride	0.081
Sodium pyruvate	55
Thymidine	0.365

RESOLVE BIOTECH PRIVATE LIMITED

Product Information

Minimum Essential Medium (MEM), originally developed by Henry Eagle, MEM contains no proteins, lipids, or growth factors. Therefore, MEM requires supplementation, commonly with 10% Fetal bovine serum (FBS). MEM includes higher concentration of Amino acids so as to closely approximate the protein composition of cultured mammalian cells. MEM can be used either with Earle's salts or Hank's salts and can also be additionally supplemented with Non-essential Amino acids (NEAA). This medium can be further modified by eliminating Calcium to facilitate growth of cells in suspension cultures.

RBMEM01 is supplemented with 1.0gm/L Glucose, L-Glutamine, Sodium bicarbonate and Phenol red. The media is formulated without Sodium pyruvate and HEPES.

Applications

Minimum Essential Medium (MEM) is a commonly-used classical cell culture medium and is used for culture of several suspension and adherent cells, including Vero, HeLa, BHK-21, HEK-293, MCF-7 etc.

Storage temperature	2-8°C, protect from light
Shelf life	12 months

Quality Control

Appearance	Orangish red, clear liquid
pH	7.0 -7.6
Osmolality	280–320 mOsm/kg
Sterility ¹	Sterile
Endotoxin ²	< 1.0 EU/ml
Cell culture test ³	Meets the requirements

Note:

¹Sterility Testing (Bacterial and Fungal) carried out in accordance with < USP 71 >

²Bacterial endotoxin testing carried out in accordance with < USP 85 >

³Indicative cell line was seeded in complete control medium and complete test medium in a 96-well plate in triplicates and incubated at 37°C in a 5% CO₂ environment. Growth rates and viability of the cells in test medium must be comparable to the cultures grown in control medium.