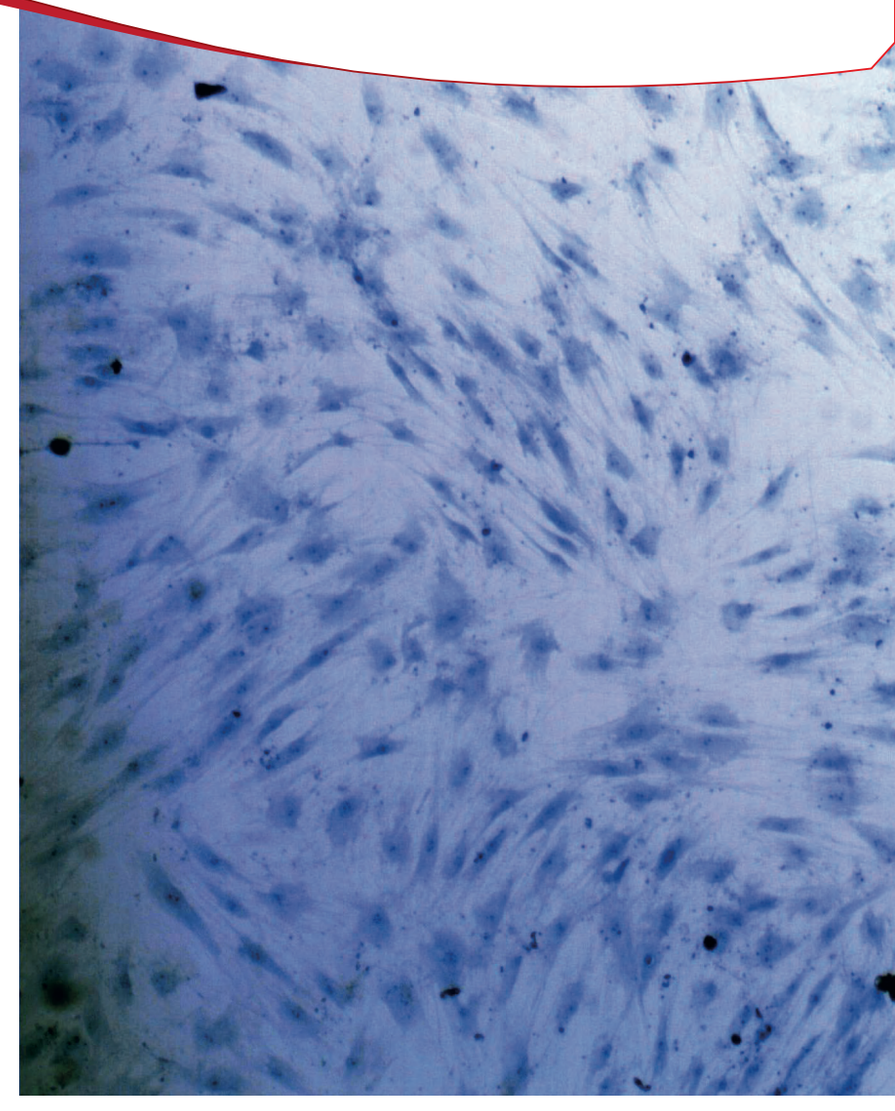
Euroclone®

serving science through innovation



Serum & Cell Culture Reagents
2017 Edition

SERA

The raw material is collected in closed sterile bags to avoid bacterial contamination and high level of endotoxins.
Serum is transported and stored at -20 °C. The raw serum is collected from EU and USDA approved areas.
The quality of our sera is checked at each step of the production process; the filtration and dispensing are perfomed under positive pressure in HEPA-filtered environmentally controlled rooms. To ensure homogeneity serum is “true-pooled”: it is first filtered through a series of three 0.1 µm pore-size filters and then pooled.
Sera are all tested for the absence of aerobic and anaerobic bacteria, fungi, and yeast and each final batch is tested for Mycoplasma.
Although Fetal Bovine Serum (FBS) and other bovine sera are the most commonly used products, many other sera, from different species, are available, ranging from Human serum to sera from other species like horse, chicken, goat and rabbit.
Serum is considered to be an animal by-product which is not intended for human consumption.

Heat Inactivation

Heat Inactivation (heating at 56°C for 30 min) is done to inactivate complement, a group of proteins present in sera that are part of the immune response. This is sometimes important for cells that will be used to prepare or assay viruses, used in cytotoxicity assays or other systems where complement may have an unwanted influence.
Heat Inactivation is still recommended for growing embryonic stem cells.
It has been reported that heat inactivation will reduce or destroy serum growth factors, and should only be done when there is a compelling.

Technical TIPS:

Thaw serum
Remove the serum from frozen storage and place it overnight in a refrigerator at 2°C to 6°C.
Transfer the bottles to a 37°C water bath.
Swirl the bottles from time to time in order to mix the solutes that tend to concentrate at the bottom of the bottle.
Do not keep the serum at 37°C any longer than necessary to completely thaw it.
Thawing serum in a bath above 40°C without mixing may lead to the formation of a precipitate inside the bottle.
We don’t recommend thawing the serum at high temperature.

Deposits in the serum
The procedures used to prepare serum may retain some fibrinogen. Since external factors may initiate the conversion of fibrinogen to fibrin, flocculent material or turbidity may be observed after thawing or heat inactivation.
Testing of serum after this has happened indicates that it does not alter its ability to function as a supplement for cell culture media; it is recommended to use the serum without treatment (filtration or centrifugation) but if the presence of flocculent material or turbidity is a concern, it can be removed by filtration through a 0.45 µm filter
A precipitate can form in serum that is incubated at 37°C for prolonged periods of time.
Electron microscopy and X-ray microanalysis indicate that the precipitate may include crystals of calcium phosphate.
The formation of calcium phosphate precipitate does not alter the performance of the serum as a supplement for cell culture.

Serum - Batch Reservations only for South America FBS
EuroClone is pleased to provide free samples to select a batch combined with batch reservation; the general sample size for FBS is 50 ml / batch.
The test period lasts for 6 weeks, after which a confirmation of the reserved batch is required by filling a form and placing the first order.
For customers who have not adequate storage facilities, we can store the reserved batch up to 12 months, combined with regular shipments.

Special Fetal Bovine Sera

Tetracycline Screened FBS

Tetracycline Screened FBS is designed for expression studies in Tet-on/Tet-off systems and transfection.
The serum is tested for the presence of Chlortetracycline, Oxytetracycline and Tetracycline by a liquid chromatography electrospray ionisation tandem mass spectrometry method.
The detection limit is < 0.05 mg/l.

- EU approved 100 nm filtered
- Batches with undetectable level of any tetracycline derivates
- Ideal for researchers using TETon/TEToff systems
- Suitable for transfection and expression studies
- High growth capacity
- Low IgG content

Cat.No.	Description	Volume	Store
ECS0182D	FBS Tetracycline Screened South America Origin	100 ml	-20°C
ECS0182L	FBS Tetracycline Screened South America Origin	500 ml	-20°C

Embryonic Screened Euromed ES FBS

Embryonic Screened Euromed ES FBS is specially tested for the ability to keep ES cell in their valuable undifferentiated state.
The screening includes colony morphology, toxicity tests and plating efficiency.
The cell growth studies are performed on mouse embryonic stem cell E14 cell line.

- Embryonic Stem (ES) cell screened 100 nm filtered
- No pre-screening needed
- Batches are screened in our facility by experienced ES-cell specialists
- Indifferentiated cell growth guaranteed
- Endotoxin level ≤ 1EU/ml

Cat.No.	Description	Volume	Store
ECS0196D	Euromed ES FBS South America origin	100 ml	-20°C
ECS0196L	Euromed ES FBS South America origin	500 ml	-20°C

Heat Inactivated FBS

FBS Heat Inactivation is performed at 56°C for 30 minutes with consequent inactivation of complement system.
The use of Heat Inactivated FBS is suggested when immunology tested are performed.
This treatment allows also to inactivate viruses and to destroy some bacterial contaminants such as mycoplasma.

- Heat inactivation treatment is carried out in a controlled environment to reproduce a consistently accurate procedure
- Heat Inactivation performed at 56°C for 30 mins
- EU approved: Origin depends on batch number (mainly Latin America)
- USDA approved: Origin depends on batch number (mainly Mexico origin) 100 nm filtered

Cat.No.	Description	Volume	Store
ECS0180DH	FBS South America origin EU approved	100 ml	-20°C
ECS0180LH	FBS South America origin EU approved	500 ml	-20°C
ECS0170DH	FBS Australian Origin	100 ml	-20°C
ECS0170LH	FBS Australian Origin	500 ml	-20°C
ECS0120DH	FBS USDA approved	100 ml	-20°C
ECS0120LH	FBS USDA approved	500 ml	-20°C

Gamma Irradiated FBS

Viral clearance is a major concern for manufacturers of both human and animal biological products.
Gamma Irradiated FBS is irradiated at 25-35 kGy with reduction or elimination of virus and bacteria.
The use of Gamma Irradiated FBS is suggested for virus and vaccine productions, on biopharmaceutical productions and during the manufacture of diagnostic products.
The treatment at a radiation dose range between 25 - 35 kGy inactivates the viruses of foot and mouth disease, vesicular stomatitis, rinderpest, peste des petits ruminants, Rift valley fever, bluetongue, while maintaining growth promotion potential.

- Gamma irradiation at 25-35kGy destroys most viruses and bacteria
- EU approved:Origin depends on batch number (mainly Latin America)
- USDA approved: origin depends on batch number (mainly Mexico origin)
- 100 nm filtered

Cat.No.	Description	Volume	Store
ECS0180DI	FBS South America origin EU approved	100 ml	-20°C
ECS0180LI	FBS South America origin EU approved	500 ml	-20°C
ECS0170DI	FBS Australian Origin	100 ml	-20°C
ECS0170LI	FBS Australian Origin	500 ml	-20°C
ECS0120DI	FBS USDA approved	100 ml	-20°C
ECS0120LI	FBS USDA approved	500 ml	-20°C

Special Fetal Bovine Sera

Dialysed FBS

Dialysed FBS is produced by a filtration process that removes many hormones and reduces the content of nucleotides and amino acids.
The cut-off is 10KDa.
The serum is dialysed against a solution of sterile PBS.
The use of Dialysed FBS is suggested for hormone free cell culture, minimal essential growth supplement and incorporation studies.

- This treatment removes some growth factors
- Mainly used for special applications
- 100 nm filtered

Cat.No.	Description	Volume	Store
ECS0171D	FBS Australian Origin	100 ml	-20°C
ECS0171L	FBS Australian Origin	500 ml	-20°C

Ultra-low Edotoxin

Each manufactured batch is rigorously controlled, from the collection of serum and throughout all stages of its treatment and production, up to final packaging on our premises.
All manufacturing steps are in accordance with the European regulations and follow the highest quality standards.
We are the preferred choice for all research, academic and industrial applications, which requires lowest endotoxin levels.

- Ideal for sensitive Cells & Applications
- Lowest endotoxin level : < 0.1 EU/mL
- Triple 100 nm Filtered

Cat.No.	Description	Volume	Store
ECS0186D	FBS South America origin EU approved	100 ml	-20°C
ECS0186L	FBS South America origin EU approved	500 ml	-20°C

Standard FBS

EuroClone Standard Fetal Bovine Sera are characterized by high quality, sterility and homogeneity; they are used as the main source for growth factors, vitamins, hormones, attachment and transport factors and other cell stimulating components. The raw sera are collected from EU and USDA approved areas.
EuroClone preselects the lots and offer its customers only the best performers one.

- EU approved: Origin depends on batch number (mainly Latin America)
- USDA approved: Origin depends on batch number (mainly Mexico origin)
- 100 nm filtered

Cat.No.	Description	Volume	Store
ECS0180D	FBS South America origin EU approved	100 ml	-20°C
ECS0180L	FBS South America origin EU approved	500 ml	-20°C
ECS0170D	FBS Australian Origin	100 ml	-20°C
ECS0170L	FBS Australian Origin	500 ml	-20°C
ECS1102D	FBS US Origin	100 ml	-20°C
ECS1102L	FBS US Origin	500 ml	-20°C
ECS0120D	FBS Mexico origin USDA approved	100 ml	-20°C
ECS0120L	FBS Mexico origin USDA approved	500 ml	-20°C

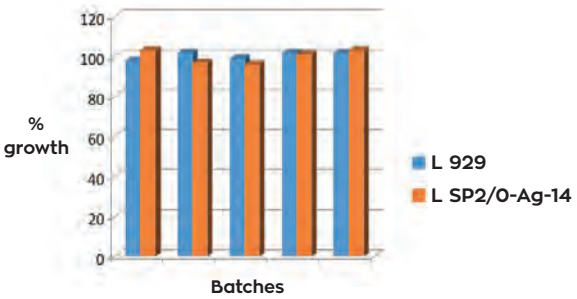
OptiClone

Fetal Bovine Serum is a natural, organic product which can vary significantly in its biochemical composition between batches.
The results of research depend sometimes on the batch of FBS used.
With OptiClone, costumer can work under reproducible conditions due to the low batch to batch variability.
OptiClone Serum has been carefully selected and extensively tested to guarantee performances and consistency.
It has been demonstrated to promote the cell growth in more than the 80% of the tested cells.
OptiClone is suitable for all applications where standard FBS is used.
OptiClone has always the same quality, batch to batch variation is reduced to less than 10%, this eliminates the need for extensive and time consuming batch testing and associated problems.
Batch reservations with OptiClone are no longer needed.
OptiClone has been successfully tested on various commercial cell lines:
L929, HEK293, MDCK, MDBK, HeLa, 3T3A, Vero, K562, SP2, 1F7, raw264.7.

- **Strengths Value priced, broad cell line applicability**
- **Serum type Calf plus Fetal, Origin South America**
- **Endotoxin level <1EU/ml, Cell performances Broad applicability**
- **Sterility testing Bacterial, fungai and mycoplasm tested**
- **Viral testing Fluorescent antibody panel**
- **Profile Biochemical, Protein**
- **Triple 100 nm Filtered**

Cat.No.	Description	Volume	Store
ECS0183L	OptiClone serum	500 ml	-20°C

Opticlone: batch to batch consistency



Bovine Serum

Serum provides proteins, nutrients and other components which aid in the cell growth.
FBS is the most commonly used serum product, but nowadays it is becoming important to evaluate other alternative products which are sold at a lower cost, such as bovine serum.
Newborn calf serum and adult bovine serum contain more immunoglobulins compared to FBS and have increased protein content, but they are a cost effective alternative to FBS.

- **EU approved: Origin depends on batch number (mainly Latin America)**
- **USDA approved: Origin depends on batch number (mainly Mexico origin)**
- **Filtered**

Cat.No.	Description	Volume	Store
ECS0070D	Newborn Calf Serum Serum origins from calves up to 10 days old	100 ml	-20°C
ECS0070L	Newborn Calf Serum Serum origins from calves up to 10 days old	500 ml	-20°C
ECS0040D	Calf Serum origins from animals which are not more than 12 monthsold	100 ml	-20°C
ECS0040L	Calf Serum origins from animals which are not more than 12 monthsold	500 ml	-20°C
ECS0020D	Bovine Serum originates fro cattle which are more than 12 months old	100 ml	-20°C
ECS0020L	Bovine Serum originates fro cattle which are more than 12 months old	500 ml	-20°C

Human Serum

Human Serum *off the clot* is obtained from whole blood which has not been treated with anticoagulants.
It goes through the natural blood clotting process and only then it is centrifuged, removing the solid constituents of the blood together with the fibrin. It contains neither anti-A nor anti-B antibodies.
Each batch is rigorously controlled and screened for Hepatitis B (HBS), Hepatitis C (HCV) and HIV Type 1 and 2 (HIV1/2).
The use is suggested for sensitive cell culture, it is suitable for most human cells and it is specially recommended for lymphocytes and human macrophages.
The serum is collected or imported and treated in agreement with the European regulations.
The sera are sourced from France, Germany, USA Approved countries or USA.

- From whole blood without anticoagulant
- Single-use blood donor bags
- No anticoagulant added, Naturally clotted
- Centrifuged
- Without fibrin
- Without AB antibodies
- 200 nm filtered

Cat.No.	Description	Volume	Store
ECS0219D	Human Serum AB male HIV, HBsAg and HCV tested	100 ml	-20°C

Sera From Other Species

EuroClone collects serum of other species than bovine, the process is fully controlled and tracked as it is for the bovine serum.
Our system of vertical integration allows us to be certain of the origins and traceability of our serum.
Each manufactured batch is rigorously controlled, from the collection of serum and throughout all stages of its treatment and production to final packaging on our premises. The serum is collected or imported and treated in agreement with the European regulations.

- EU approved

Cat.No.	Description	Volume	Store
ECS0090D	Donor Horse Serum Obtained from donor animals	100 ml	-20°C
ECS0090L	Donor Horse Serum Obtained from donor animals	500 ml	-20°C
ECS0091D	Horse Serum	100 ml	-20°C
ECS0091L	Horse Serum	500 ml	-20°C
ECS0050D	Chicken Serum	100 ml	-20°C
ECS0050L	Chicken Serum	500 ml	-20°C
ECS0200D	Goat Serum	100 ml	-20°C
ECS0200L	Goat Serum	500 ml	-20°C
ECS0230D	Lamb Serum	100 ml	-20°C
ECS0230L	Lamb Serum	500 ml	-20°C
ECS0240D	Porcine Serum	100 ml	-20°C
ECS0240L	Porcine Serum	500 ml	-20°C
ECS0250D	Rabbit Serum	100 ml	-20°C

EuroClone utilizes its state-of-the-art filtration and aseptic-fill technologies to manufacture its line of liquid media. All facilities and processes are thoroughly validated to ensure that our products meet quality standards and relevant cGMP guidelines. Standard formulas are available in lot sizes up to 5000 litres. All liquid products are manufactured using Water For Injection (WFI) Quality Water. EuroClone liquid media are packaged in inert polyethylene (PETG) plastic bottles.

Manufacturing Information

Raw Materials

Chemicals used to manufacture EuroClone liquid media, salt mixtures and reagents are of the highest purity commercially available. All chemicals conform, where applicable, to the published standards of the American Chemical Society (ACS), European Pharmacopeia (EU) or the United States Pharmacopeia (USP).
EuroClone's quality assurance program includes in-coming raw material testing for identification and purity. Certificates of Analysis from vendors or manufacturers are required to support identity, purity, safety and performance claims.
Water used to manufacture liquid media, salts and reagents meets the criteria published in the USP monograph for Water For Injection (WFI). Water is prepared by utrafiltration, reverse osmosis, deionisation, and distillation.

Manufacturing Methods, Facilities and Validation

Liquid media, salts and reagents are manufactured according to relevant cGMP guidelines.
Liquid products are membrane sterilized, unless otherwise stated, and aseptically dispensed into gamma-irradiated polyethylene (PETG) plastic bottles. The aseptic fills are performed within a Class 100 area.
All manufacturing processes and facilities are qualified and validated to ensure consistency and suitability for intended use.
The intended use of EuroClone products is for research applications only.
It is the end user's responsibility to qualify these products for their specific application. These products are not for diagnostic use. Their safety and efficiency have not been established for diagnostic or other clinical uses.
The EuroClone Validation Group plans and supervises the qualification of key production equipment and the validation of production processes in compliance with the principles of relevant current Good Manufacturing Practice guidelines and ISO 9001 (2000).

Biological Performance

EuroClone products capability to promote cell growth is assessed in functional cell culture systems designed to replicate, as closely as possible, actual laboratory applications. Whenever possible, the cell lines and the technique employed in testing reflect the original or most common applications of the medium. The cell lines used in testing represent a selection of normal, transformed or hybrid cell lines with a diverse range of nutritional and metabolic requirements. The number of cell lines used may vary according to the medium being tested. Cell cultures are monitored for evidence of nutritional deficiency, cytotoxicity, or morphological aberrations indicative of toxic components in the product. Each product is tested in parallel with a validated control lot. Certain media are subjected to special application testing that includes growth promotion, plating efficiency and cloning efficiency.

Microbiological Testing

Sterility testing of liquid products is carried out according to the membrane filtration method as described in the USP and EP.
Endotoxin levels on all cell culture products are determined using a chromokinetic - quantitative test.

Physiochemical Tests

Solubility of powdered media/salts is assessed by dehydration of the product in Water For Injection (WFI) at 1 X concentration. Products must yield a clear solution with no precipitates or abnormal particulate.
pH is measured by standard techniques (20-25°C).
Osmolarity is measured by freezing point method.

Dulbecco's Modified Eagle's Medium, High Glucose (DME/HIGH)

Dulbecco's Modified Eagle's Medium, High Glucose (DME/HIGH) contains a four-fold increase in the concentration of amino acids and vitamins found in Eagle's Basal Medium (BME). DME media were originally developed for use with a serum supplement in a 10% CO_2 atmosphere for the culture of non-transformed mouse and chicken cells. DMEM and its modifications are widely used to support the growth of a broad spectrum of mammalian cells.

Cat.No.	Description	Volume	Store
ECB7501L	DMEM High Glucose	500 ml	4°C
ECB7501Lx12	DMEM High Glucose	12 x 500 ml	4°C
ECB7501X60	DMEM High Glucose	60 x 500 ml	4°C
ECM0728L	DMEM High Glucose with L-Glutamine	500 ml	4°C
ECM0101L	DMEM High Glucose w/o Na Pyruvate	500 ml	4°C
ECM0102L	DMEM High Glucose with L-Glutamine w/o Na Pyruvate	500 ml	4°C
ECM0103L	DMEM High Glucose with stable L-Glutamine	500 ml	4°C
ECM0106L	DMEM High Glucose w/o Phenol Red	500 ml	4°C

Dulbecco's Modified Eagle's Medium, Low Glucose (DME/LOW)

Dulbecco's Modified Eagle's Medium, Low Glucose (DME/LOW) contains a four-fold increase in the concentration of amino acids and vitamins found in Eagle's Basal Medium (BME). DME media were originally developed to be used with a serum supplement in a 10% CO_2 atmosphere for the cultivation of non-transformed mouse and chicken cells. DME and its modifications ore widely used to support the growth of a broad spectrum of mammalian cells.

Cat.No.	Description	Volume	Store
ECM0749L	DMEM Low Glucose	500 ml	4°C
ECM0070L	DMEM Low Glucose with 25 mM Hepes andL-Glutamine	500 ml	4°C
ECM0060L	DMEM Low Glucose with L-Glutamine	500 ml	4°C
ECM0066L	DMEM Low Glucose with stable L-Glutamine	500 ml	4°C

Dulbecco's MEM/F-12

Dulbecco's MEM/F-12 1:1

Dulbecco's MEM/F-12 is a 1:1 mixture of Dulbecco's Modified Eagle's medium, (DME) and Ham's F-12 nutrient mixture. This mixture is used for supporting the growth of a broad spectrum of mammalian cells in serum-free conditions, in combination with growth factors and hormones.
For optimum buffering, use in a 5% CO_2 atmosphere.

Cat.No.	Description	Volume	Store
ECM0095L	DULBECCO'S MEM NUTRIENT MIX F12 (1:1) with 25 mM Hepes and L-Glutamine	500 ml	4°C
ECM0096L	DULBECCO'S MEM NUTRIENT MIX 12 (1:1) with 25 mM Hepes	500 ml	4°C
ECM0090L	DULBECCO'S MEM NUTRIENT MIX F12 (1:1)	500 ml	4°C

Hams Nutrient Mixture

Hams Nutrient Mixture F-10

Nutrient Mixture F-10 Ham's (Ham's F-10) was originally designed for the serum-free growth of Chinese Hamster Ovary cells (CHO), HeLa cells and mouse cells. Supplemented with whole or dialysed serum or in combination with hormones and growth factors, Ham's F-10 is widely used for the growth of a broad spectrum of mammalian and hybridoma cells. For optimum buffering, use in a 5% CO_2 atmosphere.

Cat.No.	Description	Volume	Store
ECB7503L	HAM'S NUTRIENT MIXTURE F-10	500 ml	4°C
ECM0140D	HAM'S NUTRIENT MIXTURE F-10 with L-Glutamine	100 ml	4°C
ECM0140L	HAM'S NUTRIENT MIXTURE F-10 with L-Glutamine	500 ml	4°C

Hams Nutrient Mixture

Hams Nutrient Mixture F-12

Nutrient mixture F-12 Ham's (Ham's F-12) was originally designed for the serum-free growth of Chinese Hamster ovary and lung cells. When used with whole or dialyzed serum or in combination with hormones and transferrin, Ham's F-12 is widely used to grow a broad spectrum of mammalian and hybridoma cells. For optimum buffering use in a 5% CO_2 atmosphere.

Cat.No.	Description	Volume	Store
ECB7502L	HAM'S NUTRIENT MIXTURE F-12	500 ml	4°C
ECM0135L	HAM'S NUTRIENT MIXTURE F-12 with L-Glutamine	500 ml	4°C
ECM0019L	HAM'S MIXTURE F-12 Coon's Modification Medium with L-Glutamine	500 ml	4°C

Minimum Essential Medium (MEM)

Minimum Essential Medium (MEM)

Minimum Essential Medium (MEM/EBSS) was developed by Harry Eagle as a modification of his BME medium. MEM is a non-complex medium well suited for a wide range of mammalian cells when used with a serum supplement. MEM with EBSS is designed for use in a 5% CO_2 atmosphere; MEM with HBSS is designed for use in an air atmosphere in closed containers.

MEM-Alpha Modification

Alpha modification of MEM without ribosides and deoxyribosides was originally used for Hamster Kidney Cells, but it was also used successfully for embryo cultures: MEM-Alpha supported animal oocyte maturation as determined by embryo development to the two-cell, morula/blastocyst, and blastocyst stages.

Cat.No.	Description	Volume	Store
ECB2071L	MINIMUM ESSENTIAL MEDIUM with Earle's Salts	500 ml	RT
ECB2071LX12	MINIMUM ESSENTIAL MEDIUM with Earle's Salts	500 ml	RT
ECM0909L	MINIMUM ESSENTIAL MEDIUM with Hank's Salts	500 ml	4°C
ECM0849L	MEM ALPHA MEDIUM w/o ribonucleosides, deoxyribonucleosides	500 ml	4°C
ECM0445L	MINIMUM ESSENTIAL MEDIUM with Earle's Salts, w 25mM HEPES	500 ml	4°C
ECM0470L	MINIMUM ESSENTIAL MEDIUM with Hank's Salts, w 25mM HEPES	500 ml	4°C
ECM0470D	MINIMUM ESSENTIAL MEDIUM with Hank's Salts, w 25mM HEPES	100 ml	4°C

Medium 199

Medium 199

Medium 199 is one of the first chemically defined media used without a serum supplement for the continuous growth of primary chick embryo heart and fibroblast cells.
Medium 199 with Earle's is optimised for 5-10% CO_2 atmosphere.

Cat.No.	Description	Volume	Store
ECM0320L	MEDIUM 199 with Earle's Modified Salts with L-Glutamine and 1.25 g/l Sodium Bicarbonate	500 ml	4°C
ECB2056L	Medium 199 with Earle's Salts	500 ml	4°C
ECM0330L	Medium 199 with Hank's Salts and L-Glutamine	500 ml	4°C

RPMI 1640

RPMI 1640 Medium

RPMI 1640 medium was developed by Moore and his co-workers in 1966.
Originally designed for the growth of human leukemia cells in monolayer or suspension cultures using a serum supplement, it has since demonstrated universal use in the growth and support of a broad spectrum of mammalian and hybrid cells as well as in hybridoma fusion protocols.

Cat.No.	Description	Volume	Store
ECB9006L	RPMI 1640 MEDIUM	500 ml	RT
ECB9006LX12	RPMI 1640 MEDIUM	12X 500 ml	RT
ECB9006LX60	RPMI 1640 MEDIUM	60X 500 ml	RT
ECM2001L	RPMI 1640 MEDIUM with stable L-Glutamine	500 ml	RT
ECM0620L	RPMI 1640 MEDIUM w/o Folic Acid (FRAGILE X CHROMOSOME MODIFICATION)	500 ml	4°C
ECB2055L	RPMI 1640 MEDIUM DUTCH MODIFICATION with 20 mM Hepes and 1 g/l Sodium Bicarbonate	500 ml	4°C
ECM9106L	RPMI 1640 MEDIUM with 25 mM Hepes	500 ml	4°C
ECM0495L	RPMI 1640 MEDIUM with 25 mM Hepes and L-Glutamine	500 ml	4°C
ECB2000L	RPMI 1640 MEDIUM with L-Glutamine	500 ml	4°C
ECM0505L	RPMI 1640 w/o Phenol Red	500 ml	4°C

Iscove's Medium

Iscove's Modified Dulbecco's Medium (IMDM)

Iscove's Modified Dulbecco's Medium (IMDM) is a modification of DME using high glucose (4500 mg/l).
It contains sodium pyruvate and additional amino acids, HEPES buffer, selenium and other components.
IMDM was originally designed for the serum-free growth of primary hematopoietic cells when, properly supplemented. When used in conjunction with serum, IMDM supports the growth of a broad spectrum of mammalian cells.
IMDM is ideal for rapidly proliferating high density cell cultures in a 5% CO_2 atmosphere.
Note that media containing HEPES buffer may exert cytotoxic effects on cells in culture when exposed to fluorescent light far as little as 30 minutes.

Cat.No.	Description	Volume	Store
ECM0192L	ISCOVE'S MODIFIED DULBECCO'S MEDIUM	500 ml	4°C
ECB2072L	ISCOVE'S MODIFIED DULBECCO'S MEDIUM with 25 mM Hepes and L-Glutamine	500 ml	4°C

Mc Coy's Medium

Mc Coy's 5A Medium

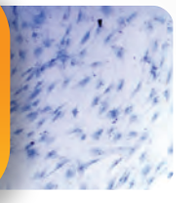
Mc Coy's 5A medium was originally developed as a modification of the Basal Medium 5A.
Mc Coy's 5A with a serum supplement in a 5% CO_2 atmosphere is widely used to support the growth of a broad spectrum of primary cultures derived from many tissues.

Cat.No.	Description	Volume	Store
ECM0210L	Mc COY'S 5A MEDIUM w/o serum withL-Glutamine	500 ml	4°C

EuroMed Mesenchymal stem cell (MSC) Serum Free Medium

Mesenchymal stem cells have become a very important tool in human therapeutic research.
These cells are able to self-renew and to differentiate into distinct cell types.
EuroMed MSC serum-free medium is a ready-to-use-medium to support long term growth of undifferentiated human MSC with retention of multi-lineage differentiation potential.
This is an optimal choice since the absence of serum eliminates batch to batch variation and gives a high level of reproducibility.

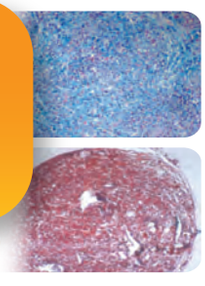
Cat.No.	Description	Volume
ECM0889L	EuroMed MSC serum-free medium	500 ml



EuroMed Chondrogenic Differentiation Kit

EuroMed Chondrogenic Differentiation Kit has been developed to support the differentiation of a variety of hMSCs into matrix-producing chondrocytes .
After the expansion of hMSCs using either EuroMed Mesenchymal stem cell kit or EuroMed MSC serum-free medium, chondrogenic differentiation can be accomplished using this kit.
The kit is available as a basal medium and a supplement containing specific selected components.

Cat.No.	Description	Volume
ECM0890K	EuroMed Chondrogenic Differentiation Kit	100 ml + 5 ml



EuroMed Adipogenic Differentiation Kit

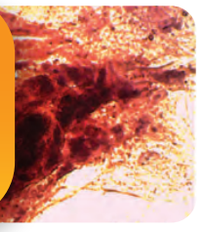
Adipocytes require specific culturing conditions and EuroMed adipogenic differentiation kit has been developed to fully achieve the ideal culture conditions for these cells.
After the expansion of hMSCs using either EuroMed Mesenchymal stem cell kit or Euromed MSC serum-free medium, adipogenic differentiation can be accomplished using this kit.
The kit is available as a basal medium and a supplement containing specific selected components.

Cat.No.	Description	Volume
ECM0891K	EuroMed Adipogenic Differentiation Kit	500 ml + 50 ml

EuroMed Osteogenic Differentiation Kit

Undifferentiated hMSCs are able, under ideal culturing condition to differentiate into osteoblasts producing mineralized matrix.
The differentiation into osteogenic progenitors is achieved once cell multilayering has been observed.
EuroMed osteogenic differentiation kit has been developed to support differentiation of hMSCs into osteogenic progenitors.
The kit is available as a basal medium and a supplement containing specific selected components.

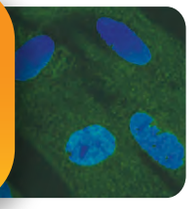
Cat.No.	Description	Volume
ECM0892K	EuroMed Osteogenic Differentiation Kit	500 ml + 50 ml



EuroMed CSC Spheres

EuroMed-CSC Spheres, has been formulated to induce the spheroids formation from primary tumor cells or from stabilized cell lines of various types of tumors.
The medium should be used in combination with disposables “ultra low attachment” plastic, which is essential to allow the formation of “clusters” starting from the cells in suspension.

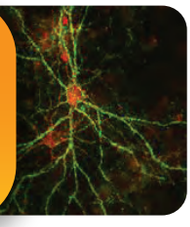
Cat.No.	Description	Volume
ECM0892D	EuroMed CSC Spheres	100 ml



EuroMed-N: A Basal Medium for Neuronal Precursor Cells

EUROMED-N is a specific basal medium for the long term culturing of murine, rat, monkey and human neuronal precursor cells.
EUROMED-N Composition has been customized to fit the unique growth requirements of embryonic and adult mammalian neural precursor cells isolated from the central nervous system (CNS).
EUROMED-N is a basal medium and, just like DMEM/F-12, does not contain any growth or trophic factors, hormones and L-Glutamine.
Its specific formulation meets the basic requirements for culturing the embryonic and adult neural stem cells and, in combination with other supplements (such as N2, B27 ,G5 and NSS), this medium allows consistent growth and/or differentiation of neural cells.

Cat.No.	Description	Volume
ECM0883L	EuroMed-N Basal medium for culture of neuronal precursor cells	500 ml



SALTS SOLUTIONS

EuroClone balanced salts are carefully manufactured with exacting care to ensure high quality and long-term stability.
Balanced salts are a combination of inorganic salts and normally a carbohydrate. They act as buffer to protect cells from sharp fluctuations in pH while maintaining the proper osmotic pressure across the cell membrane. In a complete medium, balanced salts are essential to the growth and maintenance of cells in culture. On their own, balanced salts are generally used as a cell rinsing fluid and for short-term maintenance while cells are manipulated outside a complete growth environment.
Salts Solutions Preparation instructions and Storage Requirements Salts are extremely hygroscopic and must be protected from atmospheric moisture. We recommend using the entire contents of each package immediately after opening. We do not recommend preparing concentrates solutions of media or salts from a powdered base due to the potential formation of insoluble salt complexes and precipitates. Supplements can be added prior to final preparation and filtration or added aseptically to the sterile solution.

Liquid 1X

Cat.No.	Description	Volume	Store
ECB4055L	EARLE'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium	500 ml	RT
ECB4006L	HANK'S BALANCED SALTS SOLUTIONS	500 ml	RT
ECB4006LX12	HANK'S BALANCED SALTS SOLUTIONS	12X500 ml	RT
ECB4007L	HANK'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium	500 ml	RT
ECB4007LX12	HANK'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium	12X500 ml	RT
ECM0507L	HANK'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium and Phenol Red	500 ml	RT
ECB4053L	PHOSPHATE BUFFERED SALINE	500 ml	RT
ECB4053LX12	PHOSPHATE BUFFERED SALINE	500 ml	RT
ECB4004L	PHOSPHATE BUFFERED SALINE w/o Calcium & Magnesium	500 ml	RT
ECB4004LX12	PBS, PHOSPHATE BUFFERED SALINE w/o Calcium & Magnesium	12X500 ml	RT

Liquid 10X

Cat.No.	Description	Volume	Store
ECM4055XL	EARLE'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium 10X	500 ml	RT
ECM4006XL	ECM4006XL HANK'S BALANCED SALTS SOLUTION w/o Na Bicarbonate 10x	500 ml	RT
ECM4053XL	Phosphate Buffered Saline 10x	500 ml	RT
ECM4004XL	Phosphate Buffered Saline w/o Calcium & Magnesium 10X	500 ml	RT

Reagents and Supplements

Cell culture reagents are used in conjunction with cell culture media. They provide essential nutrients for growth or maintenance during cell culture applications requiring bacteriological control, cell harvesting or other functions.

Cell Dissociation Reagents

When anchorage-dependent cultured cells reach high density or saturate the surface of the culture vessel, they undergo growth arrest and it is therefore necessary to detach them from their substrate. They have then to be splitted into several subcultures, at cell concentrations that may vary according to the particular cell type. When manipulating a cell culture whose behaviour is unpredictable, it is worth not diluting them to a factor higher than 1:3 (distributing the total number of cells in a surface 3 times higher) during the early passages; same suggestions can be used when cultivating suspension cells.

Accutase® gentle solution for cell detachment

Accutase® is a gentle solution for cell detachment which has been developed to meet the most demanding requirements for gentle and effective detachment for adherent cells.
Cell membranes and surface epitopes will not be harmed and the structural and functional quality of the surface proteins remains completely intact.
The protease and collagenolytic activities maximize its applications from cell detachment to tissue dissociation.
Effectivity has been proven in detaching primary fibroblasts, endothelial cells, neurons, tumor cell lines and insect cells.
Maximum cell viability and enhanced plating efficiency.
Due to the non-mammalian, non-bacterial origin, the contamination risk is significantly reduced.

Cat.No.	Description	Volume	Store
ECB3056D	Accutase® gentle solution for cell detachment	100 ml	-20°C

EuroClone recombinant Trypsin

EuroClone recombinant Trypsin is a highly pure and genetically engineered protein expressed in *E. Coli.*
As such it is totally animal free.
Recombinant Trypsin is a cell-dissociation enzyme that replaces porcine trypsin.
Recombinant Trypsin eliminates the risk of viruses, or other potential adventitious agents found in animal derived components.
It is highly stable with a high purity (95%). It is widely used in cell culture applications.
Recombinant Trypsin is ideal for dissociating adherent cell lines in both serum containing & serum-free conditions.

Cat.No.	Description	Volume	Store
ECB3053D	Recombinant Trypsin-EDTA 1X in PBS w/o Calcium w/o Magnesium w/o Phenol Red	100 ml	-20°C

Trypsin

Trypsin is commonly used in varying amounts to achieve proteolysis of the adhesion matrix.
It is important to point out that the trypsin concentration suitable for many different cell types ranges from 0.5% to 0.01% (standard is 0.25%), since this enzyme breaks down cell surface proteins with possible damage to cell function when used at too high concentration or for long periods of time.

Cat.No.	Description	Volume	Store
ECB3052D	Trypsin 0.05% - EDTA 0.02% in PBS w/o Ca, Mg and Phenol Red Liquid – frozen	100 ml	-20°C
ECB3052D-20	Trypsin 0.05% - EDTA 0.02% in PBS w/o Ca, Mg and Phenol Red Liquid – frozen	20 X 100 ml	-20°C
ECM0920D	Trypsin 0.05% - EDTA 0.02% with Phenol Red Liquid – frozen	100 ml	-20°C
ECB3051D	Trypsin 2.5% (w/v) in HBSS w/o Ca & Mg and Phenol Red Liquid – frozen	100 ml	-20°C

L-Glutamine

L-Glutamine is quite unstable in solution, as compared to other aminoacids: it is rapidly degraded producing ammonium ions. These degradation products can interfere and may cause damage to cell walls.
Different factors may negatively affect its stability, for example temperature or pH.
For this reason, solutions of L-Glutamine are usually kept in concentrated form at -20°C.
Under these conditions it remains stable for several months and it should be added to the culture medium immediately before use, at a final concentration of 2 mM.
It is highly recommended to split the 100 ml stock solution in aliquots and keep them frozen until necessary.
Once in the culture medium, at the temperature used for cell cultivation, the conversion to glutamic acid is quite rapid (half-life is around 8-9 days), while, at 4°C, L-Glutamine remains 80-90% stable for 2-3 weeks.
It is therefore important to restore the L-Glutamine content in culture media kept at 4°C if the medium is not used within 15 days after preparation and to replace the medium in cell cultures to avoid damage to the cells.

Cat.No.	Description	Volume	Store
ECB3000D	L-Glutamine 100X (200 mM) Liquid – frozen	100 ml	-20°C
ECB3000D-20	L-Glutamine 100X (200 mM) Liquid – frozen	20 X 100 ml	-20°C

Stable L-Glutamine

Stable L-Glutamine is a stable dipeptide form of L-Alanyl-L-glutamine.
This stable dipeptide prevents degradation and ammonia build-up even during long-term cultures.
It can be substituted for L-Glutamine on an equimolar basis for most adherent and suspension cultures.
A cellular adaptation period is not required and growth of most cell types is comparable to that obtained with L-Glutamine.

Cat.No.	Description	Volume	Store
ECB3004D	Stable L-Glutamine 100X (200 mM) Liquid – frozen	100 ml	-20°C

L-Glutamine with Penicillin-Streptomycin

This ready liquid solution which provides at the same time bacteriostatic and bactericidal activity against gram negative and gram positive organisms.
It is a broad spectrum antibiotics and it also contains the essential amino acid L-Glutamine which is necessary for cell culture growth.
Upon thawing, activity decreases rapidly.

Cat.No.	Description	Volume	Store
ECB3003D	L-Glutamine with Penicillin/Streptomycin 100X Liquid – frozen	100 ml	-20°C

Aminoacids & Vitamins

Other Supplements

Cat.No.	Description	Volume	Store
ECM0556D	MEM Vitamins Solution 100X Liquid – frozen	100 ml	-20°C
ECB3054D	Non-Essential Amino Acids 100X (NEAA) Liquid	100 ml	2 - 8°C

Reagents

Cat.No.	Description	Volume	Store
ECM0040B	Colcemid 10 µg/ml in PBS Liquid	10 ml	2 - 8°C
ECM0040C	Colcemid 10 µg/ml in PBS Liquid	20 ml	2 - 8°C
ECM0040N	Colcemid 10 µg/ml in PBS Liquid	50 ml	-20°C
ECM0970D	Distilled Water Sterile, Tissue Culture Tested Liquid	100 ml	RT
ECM0970L	Distilled Water Sterile, Tissue Culture Tested Liquid	500 ml	RT
ECM0180D	HEPES Buffer Solution 1M Liquid	100 ml	2 - 8°C
ECM0180L	HEPES Buffer Solution 1M Liquid	500 ml	2 - 8°C
ECM0543D	Potassium Chloride 0.075M Liquid	100 ml	RT
ECM0980D	Sodium Bicarbonate 7.5% Liquid	100 ml	2 - 8°C
ECM0542D	Sodium Bicarbonate 7.5% Liquid	100 ml	-20°C

Antibiotics & Selection Agents

Accidental contamination of a cell culture by bacteria, yeasts, fungi or mycoplasma leads to a rapid growth of the contaminating microorganism and to cell culture deterioration. In order to avoid this, all the handling procedures must be performed under aseptic conditions and usually a prophylactic use of antimicrobial agents is advantageous. When using antimicrobial agents in cell cultures, it is important to take into account their potential toxicity on the cells being cultured; it is therefore important to avoid high concentrations and to use these agents especially when there is a real risk of contamination, as is the case for primary cell cultures derived from surgical specimens. The stability of antimicrobial agents in culture is limited (half-life of a few days).
Therefore, in long-term cultures it is really necessary to frequently replace the culture medium with fresh medium. Different antibiotics-antimycotics have different mechanisms of action and also display variable spectra of activity. The use of adequate mixtures of different antibiotics used at the same time is a good approach and minimizes the risk of antibiotic resistant microorganisms emergence.

Gentamycin Sulfate: Interferes with protein synthesis by binding to the 30S ribosomal subunit.
Penicillin G: Interferes with the late stages of assembly of bacterial cell walls.
Streptomycin Sulfate: Binds to the 30S ribosomal subunits leading to reading mistakes during protein synthesis.

Cat.No.	Description	Volume	Store
ECM0009D	Amphotericin B (Fungizone) 250 µg/ml Liquid – frozen	100 ml	-20°C
ECM0010D	Antibiotic/Antimycotic Solution 100X 25 mg/l Amphotericin B, 10.000 U/ml penicillin & 10.000 mg/l streptomycin Liquid – frozen	100 ml	2 - 8°C
ECM0012B	Gentamycin Solution (50mg/ml) liquid-frozen	10 ml	-20°C
ECM0012D	Gentamycin Solution (50mg/ml) liquid-frozen	100 ml	-20°C
ECM0015C	G-418 (Geneticin) Solution (50 mg/ml) Liquid – frozen	20 ml	-20°C
ECM0015D	G-418 (Geneticin) Solution (50 mg/ml) Liquid – frozen	100 ml	-20°C
ECM0015W	G-418 Sulphate Powder	1 gr	RT
ECM0015Z	G-418 Sulphate Powder	5 gr	RT
ECM0011B	Gentamycin Solution (10 mg/ml) Liquid – frozen	10 ml	2 - 8°C
ECM0011D	Gentamycin Solution (10 mg/ml) Liquid – frozen	100 ml	2 - 8°C
ECB3001D	Penicillin/Streptomicin Solution 100X 10.000 U/ml penicillin & 10.000 mg/l streptomycin Liquid – frozen	100 ml	-20°C

N-GARDE Mycoplasma PCR Reagent set

N-GARDE Mycoplasma PCR Reagent set is designed to detect the presence of Mycoplasma contaminating biological materials, such as cultured cells. Mycoplasma detection by the direct culture procedure is time-consuming and some Mycoplasma species are difficult to cultivate. With Mycoplasma PCR testing, results are obtained within a few hours, since the presence of contaminant Mycoplasma can be easily detected simply by verifying the bands of amplified DNA fragments by electrophoresis. There is no need to prepare probes labeled with radioisotopes, or to calculate enzyme, dNTP's or buffer concentrations. Instead, a ready-to-use, optimized PCR mix is supplied. The reaction mix in the Mycoplasma detection kit contains a precipitant for direct loading of PCR products onto agarose gel. The primer set allows detection of various Mycoplasma species (*M. fermentans, M. hyorhinis, M. arginini, M. orale, M. salivarium, M. hominis, M. pulmonis, M. arthritidis, M. bovis, M. pneumoniae, M. pirum and M. capricolum)*, as well as Acholeplasma and Spiroplasma species, with high sensitivity and specificity. N-GARDE Mycoplasma PCR Reagent set is based on a simple assay protocol and has the following advantages:

- Highly sensitive Mycoplasma-specific primers with broad range
- Convenient and user-friendly: supplied with complete reaction mix (with Taq polymerase)
- Requires no more than 10-20 minutes of hands-on work
- Samples are easy to prepare
- Results are easily determined with a single PCR process
- Rapid: results obtained in no more than 5 hours
- No need for internal control application steps
- No loading dye needed for the agarose gel.

Cat.No.	Description	Volume	Store
EMK090020	N - GARDE Mycoplasma PCR Reagent set 20 reactions	20 react.	-20°C

N-GARDE Anti microbial solution

The water required for humidity is a source of contamination which disperses in the incubator. In order to disinfect the water, EuroClone recommends N-GARDE Anti microbial solution, which contains a non-toxic, non-volatile and extremely effective disinfectant that does not cause damage to the stainless steel tray. Preventive treatment will avoid damage to the tissue culture. In addition, it will also prevent the necessity of dealing with microorganisms that are dispersed in the incubator and causes repeated contamination of the tissue culture. N-GARDE Anti microbial solution is designed for disinfecting water baths of CO_2 incubators.

Cat.No.	Description	Volume	Store
EMK091100	N-GARDE Anti microbial solution	100 ml	-20°C

Mycoplasma Removal Agent

Accidental contamination of a cell culture by bacteria, yeasts, fungi or mycoplasma leads to a rapid growth of the contaminating microorganism and to deterioration of the cell culture. Mycoplasma Removal Agent (MRA) has been specifically developed for cell culture.
This agent has been shown to be effective in the elimination of various mycoplasma from contaminated cultures and it is suitable to prevent recontamination of cured cultures.
MRA shows strong anti-mycoplasma activity against various type of mycoplasma: of *Mycoplasma orale, Mycoplasma arginini, Mycoplasma hyorhinis, A. laidlawii e Mycoplasma salivarium.*
The low concentration of use (0.5µg/ml) means no or minimal cytotoxicity. If cells are treated with MRA, recontamination of that culture with the original mycoplasma is not detected while preventive doses of MRA are in use.
MRA is convenient to use: simply add it to the Mycoplasma contaminated cultures and incubate for only 7 days.

Cat.No.	Description	Volume	Store
ECMC210A	Mycoplasma Removal Agent Liquid	5 ml	RT

EuroMed Freezing Medium II

EuroMed II is a classical serum containing cryoprotective medium intended for cryogenic and preservation storage for standard cell lines. Freezing medium II contains DMSO which avoids destructive ice formation during freezing procedure and FBS to minimize dehydration effects and to improve viability of cells after thawing.
It is a ready-to-use solution which has been developed to preserve a wide variety of cell types during storage in liquid nitrogen.

Cat.No.	Description	Volume	Store
ECM0628N	EUROMED freezing II medium with 20% FBS & 10% DMSO Liquid – frozen	50 ml	-20°C

Notes

Primo® Cell Culture Consumable, Microplates, Mechanical Pipettes and Tips

Primo® is the new series of products developed by EuroClone to satisfy high demanding scientists' needs. The entire line of Primo®'s product is manufactured in 100,000 grade clean-room environment under a ISO 9001-2008 and ISO 13485 Quality System.

Primo® Cell Culture products are manufactured with 100% USP VI crystal class virgin polystyrene and high quality polyethylene to ensure optimal surface for your cells.

Primo® Flasks and Plates are vacuum-plasma treated to create a negatively charged and hydrophilic surface; this treatment ensures a more even and consistent cell attachment together with optimal cell growth.

Primo® screening plates are polystyrene plates designed for cell based high content screening, confocal microscopy, FRET and homogeneous assays where an optimum signal-to-noise ratio and high consistency are essential.

Primo® polypropylene storage plates have very low biomolecular binding properties, tolerate high temperature and are resistant to many standard laboratory chemicals.

Primo® mechanical pipettes are high quality devices that guarantee maximum precision and reproducibility of measurement. Pipettes are fully autoclavable and UV-resistant; are CE IVD marked with 3 years warranty. Primo® tips are compatible with the great majority of pipettes available in the market, are DNase/RNase certified, DNA & Pyrogen free.

EuroClone - Manufacturer of CCE since 1972

Your Safety is our commitment

EuroClone - BioAir is one of Europe's leading manufacturers and suppliers of highest quality Microbiological Safety Cabinets, Laminar Flow Cabinets and Recirculating Fume Cupboards, with more than 35 years of experience in the field!

S@femate Eco

Our range of 14 different models of Class II Biological Safety Cabinets realized according to the EN12469 European Standard, meets any quality or budget requirement!

S@feflow Two

The product range is completed by Laminar Flow Cabinets for manipulation of non toxic samples, Recirculating Fume Hoods for easy managing of chemicals and volatiles and a series of equipments designed for automation and industrial applications.

Aura HZ

The experience deriving from decades of sales and support to Cell Biologists, allowed EuroClone® to bring into the market an extremely innovative CO2 Incubator, the S@fegrow 188, which is the result of a deep knowledge of the best conditions required by the most critical tissue culture methods, supported by the suggestions received from the scientists involved in growing cells in vitro.

S@fegrow 188

made in ITALY

Italian Quality

All the cabinets and the incubator are completely made in Italy using components of Italian or european origin!
We use only the best for our equipment!

serving science through innovation

PR 1014_CellCultReag_1116

EuroClone S.p.A.

Via Figino, 20/22 - 20016 Pero (MI) Italy
+39 02 381951 +39 02 38101465
info@euroclone.it - www.euroclone.it

EuroClone SpA has a Quality System certified in compliance with UNI EN ISO 9001:2008 and NF EN ISO 13485:2004