

## Cell Culture Media & Supplement



**INOCLON**  
CULTIVATES YOUR IDEA

- Classical Culture Media
- Serum Free Culture Media
- Cell Culture Supplement



G.innovative Biotech is a knowledge-Based leading Biotech Company active in production and distribution of wide range of cell culture media and biotech preparations under INOCLON brand name.

The company develops, manufactures and distributes high quality cell culture media, molecular reagents related to tissue and cell culture applications including basal salt solutions and buffers, sera, special media and flexible packaging systems.

Biopharma companies and academic research center are our valuable customers and we do our best to provide excellent after-sales services to our clients.

G. Innovative Biotech is also ready to produce customer-made formula to meet specific customer's need.

All manufacturing processes are performed under cGMP regulations and Company meet the standard of ISO 13485:2003.

شرکت نوآوری زیستی، اولین و بزرگترین تولید کننده محیط کشت در خاورمیانه، شرکتی است دانش بنیان و پیشرو در زیست فناوری که در زمینه تولید و توزیع طیف گسترده‌ای از فرآورده‌های کشت سلولی با نام تجاری INOCLON فعالیت می‌کند و ارائه خدمات پس از فروش و مشتری مداری را در دستور کار خود قرار داده است. این شرکت با تولید و توزیع محیط‌های کشت سلولی با کیفیت بالا و معرف‌های بیولوژی مولکولی با کاربرد کشت سلولی و بافتی نظیر محلول‌های بافر نمکی، آنتی بیوتیک‌ها، سرم، محیط‌های خاص نقشی مهمی را در پشتیبانی از تحقیقات علمی و صنعتی بیوتکنولوژی کشور بر عهده دارد. علاوه بر گستره محصولات قابل ارائه، شرکت آمادگی تولید و عرضه فرآورده‌های کشت سلولی بر اساس درخواست مشتری را نیز دارد. کلیه فرآیندهای تولید در شرکت نوآوری زیستی بر اساس cGMP به انجام رسیده و مجموعه دارای استاندارد ISO13485: 2003 می‌باشد.

### محیط‌های کشت سلولی (Classical Cell Culture Media)

اکثر محیط‌های کشت دارای نمک‌ها، آمینواسیدها، قندها، ویتامین‌ها و سایر مواد مغذی آلی هستند. این محیط‌ها به عنوان بستر آسانی رشد سلولی به شمار آمده که می‌توان به آن مکمل‌های کولتور جهت رشد بهتر سلول‌ها اضافه نمود. هر نوع محیط کشت خاص برای طیفی از سلول‌ها و با برای یک یا چند نوع سلول خاص کاربرد دارد که پیشنهاد می‌شود با توجه به نوع میکروارگانیسم یا سلول و شرایط آن محیط کشت مورد نظر انتخاب شود.

### DMEM (Dulbecco's Modification of Eagle's Medium)

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Many modifications of Eagle's Medium have been developed since the original formulation appeared in the literature. Among the most widely used of these modifications is Dulbecco's Modified Eagle's medium (DMEM). The original DMEM formula contains 1000 mg/L of glucose and was first reported for culturing embryonic mouse cells. A further alteration with 4500 mg/L glucose has proved to be optimal for cultivation of certain cell types.



No.	Product	Content	Cat. No	Size
1	DMEM (Low Glucose)	With 1000 mg/L D-glucose, L-glutamine, 110 mg/L sodium pyruvate and sodium bicarbonate	10-DM1-100 10-DM1-500	100 ml 500 ml
2	DMEM (High Glucose)	With 4500 mg/L D-glucose, L-glutamine, 110 mg/L sodium pyruvate and sodium bicarbonate	10-DM2-100 10-DM2-500	100 ml 500 ml
3	DMEM (High Glucose)	With 4500 mg/L D-glucose, L-glutamine, and sodium bicarbonate, without sodium pyruvate	10-DM3-100 10-DM3-500	100 ml 500 ml
4	DMEM (W/O Phenol red)	With 4500 mg/L D-glucose and sodium bicarbonate, without L-glutamine and Phenol red	10-DM4-100 10-DM4-500	100 ml 500 ml
5	DMEM Powder (Low Glucose)	With 1000 mg/L D-glucose, L-glutamine, 110 mg/L sodium pyruvate and without sodium bicarbonate	10-DMP1-1L 10-DMP1-10L 10-DMP1-50L	For 1L For 10L For 50L
6	DMEM Powder (High Glucose)	With 4500 mg/L D-glucose, L-glutamine, 110 mg/L sodium pyruvate and without sodium bicarbonate	10-DMP2-1L 10-DMP2-10L 10-DMP2-50L	For 1L For 10L For 50L

## RPMI-1640

### RPMI-1640

RPMI-1640 was developed by Moore et. al. at Roswell Park Memorial Institute, hence the acronym RPMI. The formulation is based on the RPMI-1630 series of media utilizing a bicarbonate buffering system and alterations in the amounts of amino acids and vitamins. RPMI-1640 medium has been used for the culture of human normal and neoplastic leukocytes. RPMI-1640, when properly supplemented, has demonstrated wide applicability for supporting growth of many types of cultured cells, including fresh human lymphocytes.



No.	Product	Content	Cat. No	Size
1	RPMI 1640	With 25 mM HEPES buffer, L-glutamine and sodium bicarbonate	10-RP1-100	100 ml
			10-RP1-500	500 ml
2	RPMI 1640	With L-glutamine and sodium bicarbonate	10-RP2-100	100 ml
			10-RP2-500	500 ml
3	RPMI 1640 Powder	With 25 mM HEPES buffer, L-glutamine and without sodium bicarbonate	10-RPP1-1L	For 1L
			10-RPP1-10L	For 10L
			10-RPP1-50L	For 50L
4	RPMI 1640 Powder	With L-glutamine and without sodium bicarbonate	10-RPP2-1L	For 1L
			10-RPP2-10L	For 10L
			10-RPP2-50L	For 50L

## Dulbecco's Modification of Eagle's Medium (DMEM)/Ham's F12

### Dulbecco's Modification of Eagle's Medium (DMEM)/Ham's F12

During the past decade, researchers have reported the culture of a variety of cell lines in serum-free medium that contained, instead of serum, a supplement of nutrients, growth factors and hormones. Although the hormones and their concentrations are specific for the type of cell under study, the medium found to be most satisfactory for studies of this type was a 1:1 mixture of Dulbecco's Modified Eagle's Medium (DME) and Ham's F-12 Nutrient Mixture. HEPES buffer is included in the formulation at a final concentration of 15 mM to compensate for the loss of buffering capacity incurred by eliminating serum.



No.	Product	Content	Cat. No	Size
1	DMEM/F12	With 15 mM HEPES buffer and L-glutamine and sodium bicarbonate	10-DF1-100	100 ml
			10-DF1-500	500 ml
2	DMEM/F12	With L-glutamine and sodium bicarbonate	10-DF2-100	100 ml
			10-DF2-500	500 ml
3	DMEM/F12	With sodium bicarbonate and Without L-glutamine	10-DF3-100	100 ml
			10-DF3-500	500 ml
4	DMEM/F12 (w/o Phenol red)	With sodium bicarbonate, without L-glutamine and Phenol red	10-DF4-100	100 ml
			10-DF4-500	500 ml
5	DMEM/F12 Powder	With L-glutamine and without sodium bicarbonate	10-DP2-1L	For 1L
			10-DP2-10L	For 10L
			10-DP2-50L	For 50L



## مکمل‌های کشت سلولی (Cell Culture supplement)

شرکت نوآوری زیستی همچنین تأمین کننده تمامی مکمل‌ها و معرف‌هایی است که در طی فرآیند کشت سلولی مورد نیاز بوده و به محیط‌های کشت اضافه می‌گردد. این مکمل‌ها برای رشد سلول‌ها و با کاربردهای دیگر با توجه به شرایط آن‌ها مورد استفاده قرار می‌گیرند.

### Trypsin-EDTA

No.	Product	Content	Cat. No	Size
1	Trypsin-EDTA (1X) 0.05%	0.5 g/L of trypsin, 0.2 g/L of EDTA, With Phenol red	12-TR1-100	100 ml
2	Trypsin-EDTA (10X) 0.25%	2.5 g/L of trypsin, 0.38 g/L of EDTA, With Phenol red	12-TR2-100	100 ml
3	Trypsin-EDTA (10X) 0.5%	5 g/L of trypsin, 2 g/L of EDTA, Without Phenol red	12-TR3-100	100 ml
4	Trypsin-EDTA (10X) 2.5%	25 g/L of trypsin, 3.8 g/L of EDTA, Without Phenol red.	12-TR4-100	100 ml

### L-Glutamin and GlutaClon™ (L-Alanyl-Glutamine)

No.	Product	Content	Cat. No	Size
1	L-glutamine	200 mM	12-LG1-100	100 ml
2	GlutaClon™ (L-Alanyl-Glutamine)	200 mM Solution (with 8.5 g/L NaCl)	12-GC1-100	100 ml



## Other Supplements and Reagents



No.	Product	Content	Cat. No	Size
1	Trypan Blue	0.4% (w/v) in normal saline (8.1 g/L NaCl with 0.6 g/L K2HPO4)	12-TB1-100	100 ml
2	HEPES	1 M Solution (238.3 mg/ml)	12-HE1-100	100 ml
3	Dimethyl Sulfoxide (DMSO)	Sterile- Filtered Cell culture tested	12-DS1-5	5 ml
4	Pen-Strep Solution (50x)	5,000 I.U. Penicillin (per ml), 5,000 µg/ml Streptomycin	12-PS1-100	100 ml
5	Pen-Strep Solution (100x)	10,000 I.U. Penicillin (per ml), 10,000 µg/ml Streptomycin	12-PS2-100	100 ml
6	Sodium bicarbonate	NaHCO3 bulk powder based on customer need	12-NC 1-8	-
7	WFI DD H2O	WFI Quality Distilled Deionized water	13-DD1-100	100 ml
			13-DD1-500	500 ml

## Custom Production

### تولید بر اساس سفارش (Custom production)

شرکت نوآوری زیستی این افتخار را دارد که به عنوان اولین و بزرگترین تولید کننده محصولات محیط کشت به صورت صنعتی در خاورمیانه، تأمین کننده هر نوع نیاز مربوط به این بخش برای مصارف تحقیقاتی و صنعتی باشد.

G.Innovative Biotech Co. has the capability to provide the same sterility assurance levels and quality you have come to expect from all INOCLON products. The fully trained biopharmaceutical staff has proficiency in customizing and producing tailored media and reagents for today's research and biopharmaceutical professionals. We recognize the ever expanding need for customer specific cGMP solutions and offer a full range of capabilities to meet your custom formulation, packaging and regulatory needs.



### محیط‌های کشت بدون نیاز به سرم (Serum Free Media)

محیط‌های کشت بدون نیاز به سرم، محیط‌هایی هستند که برای رشد انواع خاصی از سلول‌ها و با برای کاربردهای خاص در غیاب حضور سرم استفاده می‌شوند. این محیط‌های کشت در مواردی که یک ماده، به عنوان مثال نوع خاصی از پروتئین که در سرم خون نیز وجود دارد مورد آزمایش قرار می‌گیرد از اهمیت خاصی برخوردار هستند.

### CHOCLON™

#### CHOCLON™

CHOCLON™ Serum Free and Protein-free CHO Media were developed specifically to facilitate the production and downstream processing of recombinant proteins expressed in CHO cells. These protein free formulations support high-density cultures without the need for animal derived components. Very low levels of recombinant insulin facilitate both downstream purification and regulatory compliance.

#### Advantages of using serum-free media:

- Increased definition.
- More consistent performance.
- Easier purification and downstream processing.
- Precise evaluations of cellular function.
- Increased growth and/or productivity.
- Better control(s) over physiological responsiveness.
- Enhanced detection of cellular mediators.



No.	Product	Content	Cat. No	Size
1	CHOCLON™	Serum-Free/Protein-Free Medium Similar to Procto 5, With L-Glutamine and Without Phenol red.	10-CH1-100 10-CH1-500	100 ml 500 ml

### محلول‌های بافر نمکی (Buffered Salt Solution)

محلول‌های بافر نمکی، محلول‌هایی هستند که با غلظت‌های مشخص نمکی و pH فیزیولوژیکی ساخته شده که به صورت تنها و یا با مخلوطی از سایر معرف‌ها برای شناسایی بافت‌ها و سلول‌ها به کار می‌روند. این محلول‌ها عمدتاً شامل سدیم، پتاسیم، کلسیم، منیزیم و کارباید هستند که برای سلول‌ها محیط آبی به همراه یون‌های غیر آبی را فراهم نموده و در ضمن حل pH فیزیولوژیک و فشار اسمزی را حفظ می‌نمایند.

### PBS & TBS

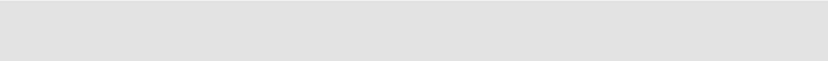
No.	Product	Content	Cat. No	Size
1	PBS (1X)	Phosphate Buffered Saline, pH 7.4	11-PB1-100	100 ml
			11-PB1-500	500 ml
2	PBS (20X)	Phosphate Buffered Saline, pH 7.4	11-PB2-100	100 ml
			11-PB2-500	500 ml
3	TBS (1X)	Tris-Buffered Saline, pH 7.4	11-TB1-100	100 ml
			11-TB1-500	500 ml
4	TBS (20X)	Tris-Buffered Saline, pH 7.4	11-TB2-100	100 ml
			11-TB2-500	500 ml

### Hank's Balanced Salt Solution ( HBSS )

#### Hank's Balanced Salt Solution ( HBSS )

The essential function of a balanced salt solution is to maintain pH and osmotic balance as well as provide your cells with water and essential inorganic ions.

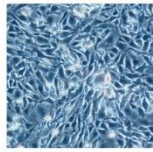
No.	Product	Content	Cat. No	Size
1	HBSS (Hanks)	Without Calcium and Magnesium	11-HB1-100 11-HB1-500	100 ml 500 ml
2	HBSS (Hanks)	Without Calcium, Magnesium and Phenol red	11-HB2-100 11-HB2-500	100 ml 500 ml



### Minimum Essential Medium (MEM)

#### Minimum Essential Medium (MEM)

Minimum Essential Medium (MEM), developed by Harry Eagle, is one of the most widely used of all synthetic cell culture media. Early attempts to cultivate normal mammalian fibroblasts and certain subtypes of HeLa cells revealed that they had specific nutritional requirements that could not be met by Eagle's Basal Medium (BME). Subsequent studies using these and other cells in culture indicated that additions to BME could be made to aid growth of a wider variety of fastidious cells. MEM, which incorporates these modifications, includes higher concentrations of amino acids so that the medium more closely approximates the protein composition of mammalian cells. Optional supplementation of non-essential amino acids to the formulations that incorporate either Hanks' or Earle's salts has broadened the usefulness of this medium.



No.	Product	Content	Cat. No	Size
1	MEM Medium	With Earle's salts, L-glutamine, nonessential amino acids and sodium bicarbonate	10-ME1-100	100 ml
			10-ME1-500	500 ml
2	MEM Medium	With Earle's salts, L-glutamine and sodium bicarbonate	10-ME2-100	100 ml
			10-ME2-500	500 ml
3	MEM Medium	With Earle's salts and sodium bicarbonate, without L-glutamine	10-ME3-100	100 ml
			10-ME3-500	500 ml
4	o-MEM	With L-glutamine and sodium bicarbonate, without ribonucleosides and deoxyribonucleosides	10-ME6-100	100 ml
			10-ME6-500	500 ml
5	o-MEM (w/o Phenol red)	With Earle's salts and sodium bicarbonate, without L-glutamine, ribonucleosides, deoxyribonucleosides and Phenol red	10-ME7-100	100 ml
			10-ME7-500	500 ml
6	o-MEM Powder	With L-glutamine, without ribonucleosides and deoxyribonucleosides and sodium bicarbonate	10-MEP6-1L	For 1L
			10-MEP6-10L	For 10L

### Other Classical Culture Media

#### Ham's Nutrient Mixtures

Ham's Nutrient Mixtures were originally developed to support growth of several clones of Chinese hamster ovary (CHO) cells, as well as clones of HeLa and mouse L-cells. Both mixtures were formulated for use with or without serum supplementation, depending on the cell type being cultured.

#### Iscove's Modified Dulbecco's Medium (IMDM)

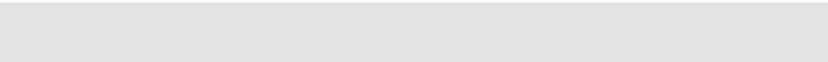
This medium is a modification of Dulbecco's Modified Eagle's medium (DME) and contains selenium, additional amino acids and vitamins, sodium pyruvate, HEPES buffer and potassium nitrate instead of ferric nitrate.

#### Opti-MEM

Reduced Serum Media is a modification of Eagle's Minimum Essential Media, buffered with HEPES and sodium bicarbonate and supplemented with hypoxanthine, thymidine, sodium pyruvate, L-glutamine, trace elements and growth factors.



No.	Product	Content	Cat. No	Size
1	F-12 Nutrient Mixture (Ham)	With L-glutamine and sodium bicarbonate	10-FN1-100	100 ml
			10-FN1-500	500 ml
2	IMDM Medium	With L-glutamine, 25 mM HEPES buffer and sodium bicarbonate	10-IM1-100	100 ml
			10-IM1-500	500 ml
3	Opti-MEM	With HEPES buffer, hypoxanthine, thymidine, sodium pyruvate, L-glutamine, trace elements, growth factors, sodium bicarbonate and phenol red reduced to 1.1 mg/L	10-OM1-100	100 ml
			10-OM1-500	500 ml





No. 241, 9<sup>th</sup> Golestan St.,  
Baharestan Industrial Estate,  
Alborz Province, Iran.

Tel: +98 26 34762100  
fax: +98 26 34760624

[info@inoclon.com](mailto:info@inoclon.com)

### Certificate of Registration

**QUALITY MANAGEMENT SYSTEM - ISO 13485: 2003**

This is to certify that  
**INOCLON ZITHI GEOTECH**  
has been found to conform to the requirements of the  
Standard for the purpose of:  
**Manufacture of Quality Management System**

Scope:  
Manufacture of Quality Management System

Address: Golestan St. No. 241, Baharestan Industrial Estate, Alborz Province, Iran

Issue Date: 2008/05/08

Expiry Date: 2010/05/08

Page: 1 of 1

**BSI**

The manufacturer's production and service processes comply with the requirements of ISO 13485: 2003 for the following:  
City/Town: Golestan Baharestan Industrial Estate  
Product/Service: Manufacturing of Quality Management System  
Level: Full  
Entry Date: 2008/05/08

For more information, visit [www.bsi.org.uk](http://www.bsi.org.uk)

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