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Gibco™

DMEM/F-12, GlutaMAX™ supplement

DMEM/F-12 (Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12) is a widely used basal medium for supporting the growth of many [Read more](#)

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Catalog Number	Quantity
10565018	500 mL
31331028 also known as 31331-028	500 mL
31331093 also known as 31331-093	10 x 500 mL

Price (MDL)

-

[Contact Us](#)

Quantity:

500 mL

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DMEM/F-12 (Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12) is a widely used basal medium for supporting the growth of many different mammalian cells. Cells successfully cultured in DMEM/F-12 include MDCK, glial cells, fibroblasts, human endothelial cells, and rat fibroblasts. We offer a variety of DMEM/F-12 modifications for a range of cell culture applications. Find the right formulation using the [media selector tool](#).

This DMEM / F-12 is modified as follows:

- With Without
- GlutaMAX • HEPES
 - Phenol Red

The complete [formulation](#) is available.

Using DMEM/F-12

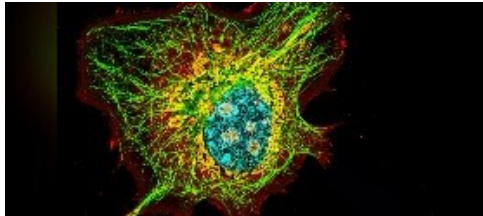
DMEM/F-12 is a 1:1 mixture of DMEM and Ham's F-12. This formulation combines DMEM's high concentrations of glucose, amino acids, and vitamins with F-12's wide variety of components. DMEM/F-12 with [GlutaMAX](#) supplement minimizes toxic ammonia build-up and improves cell viability and growth in an easy-to-use format. DMEM/F-12 contains no proteins, lipids, or growth factors. Therefore, DMEM/F-12 may require supplementation, commonly with 10% [Fetal Bovine Serum \(FBS\)](#). DMEM/F-12 uses a sodium bicarbonate buffer system and therefore requires a 5–10% CO₂ environment to maintain physiological pH.

For Research Use or Further Manufacturing. Not for diagnostic use or direct administration into humans or animals.

Specifications

Concentration	1 X
Manufacturing Quality	cGMP-compliant under the ISO 13485 standard
Product Type	DMEM (Dulbecco's Modified Eagle Medium)/F-12
Quantity	500 mL

Culture Type	Mammalian Cell Culture
Form	Liquid
Sterility	Sterile-filtered
Sterilization Method	Sterile-filtered
With Additives	GlutaMAX, High Glucose, Phenol Red, Sodium Pyruvate
Without Additives	No HEPES
Unit Size	Each



Follow the 5 steps to publication-quality fixed-cell imaging.

[Download your free 5-step guide today >](#)



[Explore Gibco GlutaMAX supplement to enable improved cell viability >](#)

Media Formulations

[31331 - DMEM/F-12, GlutaMAX\(TM\)](#)

Q Ask a question about this product.

What additional products do I need to make a complete StemPRO hESC SFM?

What aspects of cell culture media can be customized?

What are the components of the StemPro hESC SFM kit?

My cells are not adhering to the culture vessel. What should I do?

I see a decrease in growth of my culture. What should I do?

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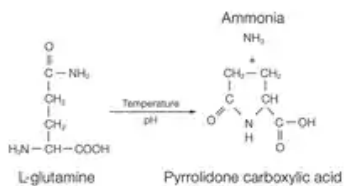
Frequently asked questions (FAQs)

Do you offer DMEM/F12 medium without folic acid? ▼

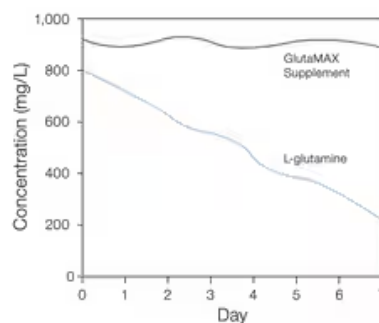
Will depletion, absence, or breakdown of essential growth-promoting components such as glutamine or growth factors reduce the growth rate of my culture? ▼

Will the media formulations containing GlutaMAX supplement change with respect to L-glutamine content? ▼

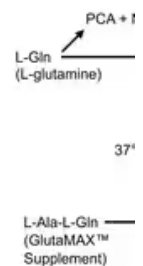
Figures



L-glutamine is prone to spontaneous degradation



L-glutamine degrades faster than GlutaMAX Supplement



GlutaMAX delivers L

Certificates

Search

Lot #	Certificate Type	Date	Catalog Number(s)
3251164	Certificate of Analysis	Oct 30, 2025	10565018
79755369	Certificate of Analysis	Oct 29, 2025	31331028
3324337	Certificate of Analysis	Oct 22, 2025	10565018
3324332	Certificate of Analysis	Oct 22, 2025	10565018
3267938	Certificate of Analysis	Oct 05, 2025	10565018

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Safety Data Sheets



SDS

Scientific Resources

Reference Materials ^

[31331 - DMEM/F-12, GlutaMAX\(TM\)](#)

[10565 - DMEM/F-12, GlutaMAX\(TM\)](#)


Brochures ^

[Brochure: GlutaMax supplement - keep your cells healthier for longer](#)

 [Flyer: Gibco Custom Media Manufacturing](#)

Product Information


Manuals

 [Instructions for Use: DMEM \(Dulbecco's Modified Eagle Medium\)](#)

Citations & References (5)

Citations & References

Abstract


[Glycine-extended progastrin processing intermediates induce H₊,K\(+\)-ATPase alpha-subunit gene expression through a novel receptor.](#) 

Authors: Kaise M; Muraoka A; Seva C; Takeda H; Dickinson C J; Yamada T;

Journal: J Biol Chem

PubMed ID: 7744746

'Although plasma levels of G-Gly are equivalent to those of gastrin, G-Gly has essentially no acute effect on gastric acid secretion. However, we have observed that inhibition of gastrin amidation leads to increased plasma concentrations of G-Gly and enhanced gastric acid secretion. We hypothesized, therefore, that G-Gly might have a ... [More](#)


[Adenosine nucleotides acting at the human P2Y1 receptor stimulate mitogen-activated protein kinases and induce apoptosis.](#) 

Authors: Sellers LA, Simon J, Lundahl TS, Cousens DJ, Humphrey PP, Barnard EA,

Journal: J Biol Chem

PubMed ID: 11278310

For the widely distributed P2Y receptors for nucleotides, the transductional and functional responses downstream of their coupling to G proteins are poorly characterized. Here we describe apoptotic induction and the associated differential stimulation of mitogen-activated protein (MAP) kinase family members by the human P2Y(1) receptor. The potent P2Y(1) receptor agonist, ... [More](#)

[Activity of adenosine diphosphates and triphosphates on a P2Y\(T\)-type receptor in brain capillary endothelial cells.](#) 

Authors: Simon J, Vigne P, Eklund KM, Michel AD, Carruthers AM, Humphrey PP, Frelin C, Barnard EA,

Journal: Br J Pharmacol

PubMed ID: 11156575

1. A P2Y (nucleotide) receptor activity in a clonal population (B10) of rat brain capillary endothelial cells is coupled to inhibition of adenylyl cyclase and has functional similarities to the P2Y(T) (previously designated 'P2T') receptor for ADP of blood platelets. However, the only P2Y receptor which was detectable in a ... [More](#)

effect. [↗](#)

Authors: Xu Q, Konta T, Furusu A, Nakayama K, Lucio-Cazana J, Fine LG, Kitamura M,

Journal: J Biol Chem

PubMed ID: 12186877

we examined the involvement of mitogen-activated protein kinase phosphatase 1 (MKP-1) in suppression of JNK and the antiapoptotic effect of t-RA and the roles of nuclear receptors in ... [More](#)

[Genetic Evidence That Protease-activated Receptors Mediate Factor Xa Signaling in Endothelial Cells.](#) [↗](#)

Authors: Camerer Eric; Kataoka Hiroshi; Kahn Mark; Lease Katy; Coughlin Shaun R;

Journal: J Biol Chem

PubMed ID: 11850418

The coagulation protease Factor Xa (Xa)(1) triggers a variety of cellular responses that may be important for inflammatory reactions to tissue injury. Protease-activated receptors (PAR1, PAR2, and PAR4) can mediate Xa signaling in heterologous expression systems. However, other candidate Xa receptors have been described, and the extent to which one ... [More](#)