





## DMEM/F12 Medium

Cat #: BMC1015

Size: 500 mL

	<b>DMEM/F12 Medium</b>		
	<b>Cat #:</b> BMC1015		<b>Lot #:</b> Refer to product label
	<b>Applicable cells:</b> Mammalian cells		
	<b>Storage:</b> Stored at 4°C for 12 months		

## Assay Principle

DMEM/F-12 Medium (Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12) is a 1:1 mixture of DMEM medium and Ham's F-12 medium, based on DMEM medium. F-12 was added to enrich the nutrient content, containing a variety of trace elements. Dulbecco Modified Eagle Medium (DMEM) is a modified Eagle Basic Medium (BME) with four times the amino acid and vitamin concentration of BME. Ham's F-12, based on Ham's F-10 medium, significantly increased the concentration of choline, inositol, putputylamine and several amino acids. DMEM/F-12 medium is widely used to support the growth of a variety of mammalian cells, including MDCK, glial cells, fibroblasts, human endothelial cells, and rat fibroblasts. At the same time, DMEM/F12 medium is often used as the basis for the development of serum-free medium, and it is also suitable for the culture of mammalian cells with low serum content and clone density. DMEM/F12 Medium contains amino acids, vitamins, inorganic salts and other components required for multi-type cell culture, but does not contain lipids or any growth factors, so the product should be used with serum or without serum additives. This product is filtered with 0.22 µm filter membrane to remove bacteria, without high temperature and high pressure sterilization, less nutrient loss, ready to open the bottle; To provide a variety of component combinations of cell media to meet various needs. It is suitable for a variety of mammalian cell culture.

## Component Description

Concentration	1×
pH	7.2-7.4
L-Glutamine	2.5 mM
D-Glucose	3,151 mg/L
Sodium Pyruvate	0.5 mM
HEPES Buffer	3,600 mg/L
Phenol Red Indicator	8.1 mg/L

## Materials Required but Not Supplied

- Microscope, incubator (37°C, 5%CO<sub>2</sub>), fetal bovine serum (FBS), trypsin solution

- Centrifuge
- Culture bottle, precision pipettes, disposable pipette tips

## Reagent Preparation

**Preparation of complete medium:** 10 mL fetal bovine serum (FBS) was added to 90 mL DMEM/F12 Medium, mixed well, and double antibody could be added as required.

## Assay Procedure

1. Adherent cells: Passage when the cell density reaches 80-90%

(1) The culture supernatant was discarded and the cells were cleaned with PBS 1-2 times.

(2) Add appropriate amount of trypsin solution, make the trypsin solution cover the whole cell culture bottle, cover it well and put it into the incubator (37°C, 5%CO<sub>2</sub>) for digestion.

(3) The cells were observed under the microscope, and the cells contracted obviously, and the morphological changes of the cells were found at the bottom of the culture vessel by naked eye; Or when you blow the cells with a gun and find that the cells can just be blown down, add an appropriate amount of complete medium and blow down the cells to terminate digestion.

**Note: Different cells have different digestion times.**

(4) The cell suspension was centrifuged at 1,000 rpm for 5 min and the supernatant was discarded.

(5) Resuspend the cells with fresh complete medium, add them to a new culture bottle, and add sufficient complete medium.

**Note: The passage ratio is different for different cells.**

(6) Put the cells back into the incubator (37°C, 5%CO<sub>2</sub>) for further culture.

2. Suspension cells: Passage when the cell density reaches 80-90%

(1) All cell cultures were collected, centrifuged at 1,000 rpm for 5 min, and the supernatant was discarded.

(2) Resuspend the cells with fresh complete medium, add them to a new culture bottle, and add sufficient complete medium.

**Note: The passage ratio is different for different cells.**

(3) Put the cells back into the incubator (37°C, 5%CO<sub>2</sub>) for further culture.

## Precautions

1. Store the product in the refrigerator at 4°C as soon as possible after receiving it, avoid long-term storage at room temperature.

In order to maintain the best use effect of the product, do not freeze or thaw treatment.

2. Use caution. When re-storing the bottle after opening, you need to seal the bottle with a sealing film to avoid contamination.

3. Some contents such as L-glutamine are easy to degrade, so do not store for too long and use as soon as possible.

## Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.