

**Product Name**

Name: Waymouth's MB 752/1 Medium, with L-Glutamine

Cat. No.: C3175-0500

Size: 500 mL

**Product Description**

Waymouth's MB 752/1 with L-Glutamine was designed and developed specifically for the cultivation of mouse L929 fibroblast cells in an exclusively chemically defined synthetic medium and a serum-free environment. The applications of Waymouth's medium are much more extensive and include not only the establishment of carcinoma cell lines from pleural effusions and the growth of potentially tumorigenic cells but also whole organ cultures.

Most common types of media consist of an isotonic, buffered basal nutrient-enriched environment, which provides an energy source, inorganic salts, vitamins, amino acids as well as additional constituents (e.g. supplements) according to the demands of a particular cell line. This relatively more complex medium formulation provides an optimal cell-culture environment that mimics the *in vivo* environment including basic nutritional requirements, osmotic pressure, and physiological pH, among other considerations.

Waymouth's MB 752/1 with L-Glutamine contains no growth-promoting factors or antimicrobials. The type of medium recommended usually is dependent upon the type and character of the cells in the culture.

**Function of L-Glutamine**

When used as a supplement, L-Glutamine, a precursor of glutamate, is one of the most readily available sources of energy for many rapidly dividing cell types *in vitro* and is a central and key participant in nitrogen metabolism. Although L-Glutamine supports the growth of cells with high energy demands and synthesizing large quantities of nucleic acids and proteins, it is relatively unstable. L-glutamine is a readily available and viable alternative energy source for rapidly dividing cells as well as for cells that utilize glucose but in an inefficient manner. The resultant glucose deficiency must offset this imbalance in order to meet the high energy demands of the cells. This is where the amino acid comes into play and once deaminated, L-glutamine is utilized as an essential carbon source, incorporated into proteins, and participates in nucleic acid metabolism. L-alanyl-L-glutamine (stable glutamine) is preferred over the regular L-glutamine as it is much more heat-stable than L-glutamine, especially when the culture requires a long incubation period.

Waymouth's MB 752/1 with L-Glutamine contains numerous important basic constituents in a ready-to-use formulation, which includes a typical and wide variety of elements, among others:

- Amino Acids
- Vitamins
- Inorganic Salts
- Phenol Red
- Trace Elements

**Predominant Characteristics**

- Liquid Formulation
- With Sodium Bicarbonate ( $\text{NaHCO}_3$ )
- With D-Glucose
- With Phenol Red ( $\text{C}_{19}\text{H}_{13}\text{NaO}_5\text{S}$ ) as a pH indicator
- With L-Glutamine
- Promotes Cell Performance and Productivity
- More Uniform & Consistent Media Performance
- Sterile-Filtered ( $0.1\ \mu\text{m}$ ), Cell Culture-Tested

**Storage and Stability**

The product should be kept at **2 - 8°C**.

The product is **light-sensitive** and therefore should not be left in the light.

Shelf life: 12 months from date of manufacture

**Procedure**

1. Take a bottle from the storage at 2 - 8°C and read the label.
2. Ensure that the cap of the bottle is tight.
3. Allow to equilibrate to room temperature prior to use.
4. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
5. Use the medium according to established protocols, using an aseptic/sterile technique under a laminar-flow culture hood.

**Precaution and Disclaimer**

For research use only, not for clinical diagnosis, and treatment.