William's E, with L-alanyl-glutamine

Cat. No. : PM151213

Size : 500mL

General Information

Product Form	Liquid
Concentration	1×
pH	7.2-7.4
D-Glucose	2000 mg/L
HEPES	Negative
L-Alanyl-L-Glutamine	2 mM
$NaHCO_3$	2200 mg/L
Phenol red	10 mg/L
Sodium pyruvate	25 mg/L
Storage	2-8°C, Shading Light
Shipping	Room Temperature
Expiration date	24 months

Background

William's E medium was designed by William and Gunn. It is mainly used for the long-term culture of rat liver epithelial cells, and can also be used for the culture of other mammalian liver cells. L-alanyl-L-glutamine is an advanced cell culture additive and as a substitute for L-glutamine. L-glutamine is a necessary nutrient element for cells. But it is unstable in solution and can be degraded spontaneously to form ammonia and pyroglutamic acid and ammonia is harmful to cells. L-alanyl-L-glutamine is stable in aqueous solution and does not degrade spontaneously. The mechanism used by the cell is that the cell gradually releases a peptidase into the culture medium during cell culture. The peptidase can hydrolyze L-alanyl-L-glutamine into L-alanine and L-glutamine. L-alanine and L-glutamine can be absorbed and utilized by cells. This not only increases the utilization rate of L-glutamine, but also does not produce excess ammonia, which is more beneficial to cell growth. William's medium contains many kinds of amino acids, vitamins, inorganic salts and other ingredients for cell culture, but does not contain protein, lipids or any growth factors. Therefore, the product should be used with serum or serum-free additives.

Notes

1. This product is for research use only.
2. This product is sterilized by 0.1 μm filtration.
3. It is necessary to pay attention to the aseptic operation and avoid the contamination.