SILAC RPMI-1640 Medium, without glucose, phenol red

Cat. No.: PM150144

Size: 500mL

General Information

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

Background

RPMI-1640 is an improved Mccoy's 5A medium, which uses bicarbonate buffer system. RPMI-1640 medium was originally designed for lymphocyte culture. Nowadays, it has been widely used in the culture of normal cells and cancer cells, especially suspension cells, which is one of the most widely used media.

Stable isotope labeling with amino acids (SILAC) in cell culture is a technique for quantitative analysis of protein expression using stable isotope-labeled amino acid binding mass spectrometry during cell culture. SILAC RPMI-1640 Flex Media is improved on the basis of RPMI-1640 medium. The medium does not contain L-glutamine, L-arginine, L-lysine, glucose and phenol red. It is often used in the study of stable isotope-labeled proteins of arginine and lysine.

Phenol red is used as an indicator of pH in the medium to continuously monitor the pH of the medium. The medium is yellow at low pH, and is purple at high pH. When the pH is 7.2-7.4, it is red, which is most suitable for cell culture. But phenol red also has some disadvantages, studies have shown that phenol red can simulate the role of steroid hormones (especially estrogen), so it is best to use the medium without phenol red to culture estrogen-sensitive cells (such as breast tissue). Second, phenol red will interfere with flow cytometry analysis. In addition, the presence of phenol red in some serum-free medium formulations can interfere with the sodium-potassium balance.

This product 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 only used for scientific research or further research, not for diagnosis and treatment.
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.