# Technical Data Sheet

Date: 24/02/2014

## Sodium Pyruvate 100mM

**CAT No:** LM-S2044

| | |
|---|---|
| **Theoretical pH**: | 7 ± 1 |
| **Osmolality:** | 200 mOsm/kg ± 10% |
| **Colour:** | colourless, clear solution |
| **Storage conditions:** | +2 / +8°C |
| **Shelf life:** | 48 months |
| **Sterility tests:** | - Bacteria in aerobic and anaerobic conditions<br>- Fungi and yeasts |
| **Endotoxin:** | < 1 EU/ml |
| **Composition:** | meet special formulation sheet |

**Recommended use:**
Use aseptic technique when handling or supplementing this medium.
For in vitro laboratory use only, not for drug, human or veterinary use.

**Application:**
This product is a 100mM (11g/l) solution prepared in cell culture grade water. It is suitable for cell culture research at 1mM (0.11g/l).
Pyruvate, the anion of pyruvic acid, is the end product of the glycolysis pathway, whereby glucose is converted to pyruvate with the production of ATP. In the mitochondria of aerobic organisms, pyruvate is converted to acetyl coenzyme A, which in turn is oxidized completely to CO2. When oxygen is not present in sufficient quantities, pyruvate is metabolized to lactate. In anaerobic organisms such as yeast, pyruvate is converted to ethanol. In gluconeogenesis, pyruvate is converted to glucose (1). Other metabolic fates of pyruvate include its conversion to alanine by transamination and to oxaloacetate by carboxylation (2).

**Indications of deterioration :**
This solution should be clear and free of particulate and flocculent material.
Do not use if the solution is cloudy or contains precipitate.
Other evidence of deterioration may include degradation of physical or performance characteristics.

**References :**
1. Biochemistry, 3rd ed., Stryer, L., W. H. Freeman (New York, NY: 1988), pp. 349-394.
2. Textbook of Biochemistry with Clinical Correlations, Devlin, T. M., ed., Wiley-Liss (New York, NY: 1992), p. 248.