# Sodium Pyruvate 100mM

**CAT N°**: L0642

**Storage conditions**: +2°C to +8°C

**Shelf life**: 48 months

**Composition**: Sodium Pyruvate 11 g/l

**Colour**: Colourless, clear solution

**pH**: 7 ± 1

**Osmolality**: 200 mOsm/kg ± 10%

**Endotoxin**: < 1 EU/ml

**Sterility tests**:
- Bacteria in aerobic and anaerobic conditions
- Fungi and yeasts

**Cell Growth test:** Not applicable

**Other tests:** Not applicable

**Recommended use**:
- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store product in an area protected from light (not necessary for saline solutions).
- Manipulate the product in aseptic conditions (e.g.: under laminar air flow)
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g.: gloves, mask, hygiene cap, overall…)

The product is intended to be used in vitro for research or further manufacturing only and not for use as an Active Pharmaceutical Ingredient or food or animal feed.

**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 $CO_2$. 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).

**Uses**: Not applicable

**Signs 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.

**Remarks:**

- **CAS N°:** 113-24-6
- **Molecular Weight:** 110.0 g/mol
- **Chemical formula**: $C_3H_3NaO_3$
- **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.