



Product Information

Sodium pyruvate
Cell Culture Tested
Insect Culture Tested

Product Number **P 5280**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_3H_3NaO_3$

Molecular Weight: 110.0

CAS Number: 113-24-6

Synonyms: α -ketopropionic acid sodium salt,
2-oxopropanoic acid sodium salt, pyruvic acid sodium
salt

This product is cell culture tested (0.11 mg/ml) and
insect cell culture tested (0.2 mg/ml). It is appropriate
for use in cell culture and insect cell culture
applications.

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

Sodium pyruvate is utilized as a component in culture
broth and media.^{3,4} The use of sodium pyruvate in
Wallen fermentation medium to enhance the
conversion of oleic acid to 10-ketostearic acid by
Bacillus sphaericus has been described.⁵ A protocol
that uses sodium pyruvate to establish stably
transfected human B cell lines has been published.⁶

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or
other uses.

Preparation Instructions

This product is soluble in water (100 mg/ml), yielding a
clear, colorless solution.

Storage/Stability

Sterile filtered commercial solutions of sodium
pyruvate are stable up to 24 months (100 mM, Product
Number S 8636), when stored at 2-8 °C.

Pyruvic acid polymerizes and decomposes upon
standing. It is advised to keep containers tightly
sealed.⁷

References

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7. The Merck Index, 12th ed., Entry# 8205.

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