

Product Information

Succinic acid Cell Culture Tested

Product Number **S 9512**
Store at Room Temperature

Product Description

Molecular Formula: C₄H₆O₄
Molecular Weight: 118.1
CAS Number: 110-15-6
Melting point: 185-187 °C¹
Boiling point: 235 °C (with partial decomposition into the anhydride)¹
pK_a: 4.21, 5.72 (25 °C)²
Synonyms: butanedioic acid, dicarboxylic acid C₄, ethylenesuccinic acid¹

This product is cell culture tested (0.075 mg/ml) and insect cell culture tested (0.01 mg/ml). It is appropriate for use in cell culture and insect cell culture applications.

Succinic acid is a dicarboxylic acid that occurs in nature in such organisms as fungi and lichens.¹ In eukaryotes, succinate, the anion of succinic acid, is an intermediate in the citric acid cycle, being formed from succinyl CoA and being converted to fumarate. Bacteria and plants can produce succinate from acetate or acetyl CoA, in the glyoxylate cycle.³

Succinic acid has been used in large scale applications including the manufacture of lacquers, dyes, and esters for perfumes.¹ In polymer research, succinic acid has been utilized to prepare biocompatible hybrid dendritic-linear polyester-ethers.⁴ A study of the co-crystallization of cis-itraconazole with various 1,4-dicarboxylic acids, including succinic acid, has been reported.⁵

Succinic acid has been used as a matrix in infrared (IR) MALDI analytical methods.^{6,7,8} An analytical study of various low molecular weight organic acids, including succinic acid, using capillary zone electrophoresis-electrospray ionization mass spectrometry has been published.⁹

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. It is also soluble in alcohol (54 mg/ml), methanol (158 mg/ml), acetone (27 mg/ml), glycerol (50 mg/ml), and ether (8.8 mg/ml). It is essentially insoluble in benzene, carbon disulfide, and petroleum ether.¹

References

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9. Hagberg, J., Analysis of low-molecular-mass organic acids using capillary zone electrophoresis-electrospray ionization mass spectrometry. *J. Chromatogr. A*, **988(1)**, 127-133 (2003).

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