



Product Information

Folic acid Cell Culture Tested

Product Number **F 8758**
Store at Room Temperature

Product Description

Molecular Formula: $C_{19}H_{19}N_7O_6$

Molecular Weight: 441.4

CAS Number: 59-30-3

pK_a : 8.26¹

λ_{max} : 368, 283, 256 nm²

Extinction Coefficient: $E^{mM} = 9.12, 25.1, 26.9$
(0.1 M NaOH)²

Specific Rotation: +23° (0.5 %, 0.1 M NaOH, 25 °C)

Synonym: pteroylglutamic acid³

Folic acid, also known as folate, is a B vitamin that can be found in a variety of fruits and vegetables. It can also be chemically synthesized. Folate, a water-soluble vitamin, helps the body form red blood cells and aids in the formation of genetic material within every body cell.

This product exhibits metal binding properties.¹ The log stability constants for various cations are as follows:

6.0 (Mn²⁺)

7.9 (Fe²⁺)

8.1 (Co²⁺)

9.0 (Ni²⁺)

7.8 (Cu²⁺)

7.5 (Zn²⁺)

This product is synthetic and is 100% of the L-isomer. It is tested for use in cell culture applications at 4 mg/L on both mammalian cells and insect cell lines.

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in 1 M NaOH (50 mg/ml). The free acid is only slightly soluble in water (0.01 mg/ml at 0 °C) and is insoluble in aqueous solutions below pH 5. It is soluble in sodium bicarbonate or sodium hydroxide solutions.

Storage/Stability

This product is photolabile and is inactivated by UV light.³ Alkaline solutions are reasonably stable in the dark, but heating will destroy both alkaline and acidic solutions.

References

1. Data for Biochemical Research, 3rd ed., Dawson, R. M. C., et al., Oxford University Press (New York, NY: 1986), p. 412.
2. The Merck Index, 11th ed., Entry# 4140.
3. Data for Biochemical Research, 3rd ed., Dawson, R. M. C., et al., Oxford University Press (New York, NY: 1986), p. 134-135.

CMH/NSB 1/03

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