Taiclone®
Quality Guarantee

Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Adenine

Catalog No: tcsc1984

Available Sizes

Size: 1g

Size: 5g

Specifications

CAS No:
73-24-5

Formula:
$C_5H_5N_5$

Pathway:
Cell Cycle/DNA Damage;Metabolic Enzyme/Protease

Target:
DNA/RNA Synthesis;Endogenous Metabolite

Purity / Grade:
>98%

Solubility:
DMSO : 20 mg/mL (148.01 mM; Need ultrasonic)

Alternative Names:
6-Aminopurine;Vitamin B4

Observed Molecular Weight:
135.13

Product Description

Adenine is a purine derivative and a nucleobase with a variety of roles in biochemistry.

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Target: Nucleoside antimetabolite/analog

Adenine is a nucleobase with a variety of roles in biochemistry including cellular respiration, in the form of both the energy-rich adenosine triphosphate (ATP) and the cofactors nicotinamide adenine dinucleotide (NAD) and flavin adenine dinucleotide (FAD), andprotein synthesis, as a chemical component of DNA and RNA. The shape of adenine is complementary to either thymine in DNA or uracil in RNA.

In older literature, adenine was sometimes called Vitamin B4. It is no longer considered a true vitamin or part of the Vitamin B complex. However, two B vitamins, niacin and riboflavin, bind with adenine to form the essential cofactors nicotinamide adenine dinucleotide (NAD) and flavin adenine dinucleotide (FAD), respectively. Hermann Emil Fischer was one of the early scientists to study adenine. Experiments performed in 1961 by Joan Oró have shown that a large quantity of adenine can be synthesized from the polymerization of ammonia with fivehydrogen cyanide (HCN) molecules in aqueous solution, whether this has implications for the origin of life on Earth is under debate.