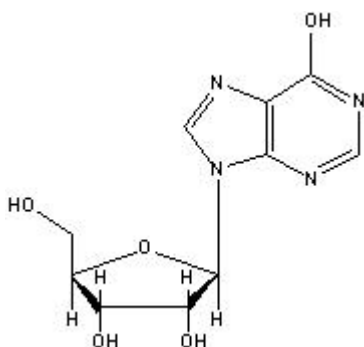


TECHNICAL INFORMATION

Catalog Number: 102049

Inosine

Structure:



Molecular Formula: C₁₀H₁₂N₄O₅

Molecular Weight: 268.2

CAS # : 58-63-9

Synonyms: 9-b-D-Ribofuranosylhypoxanthine; Hypoxanthine riboside; Hypoxanthosine

Physical Description: White crystalline powder

Solubility: Soluble in 1 N HCl (30 mg/ml - clear, colorless solution), 50% ammonium hydroxide (10 mg/ml - clear, colorless solution); Slightly soluble in water (1.6 g/100 ml @ 20°C); very slightly soluble in ethanol or chloroform; practically insoluble in ether.

Description: Inosine is the deaminated form of adenosine. It is a nucleoside consisting of hypoxanthine and ribose. Its phosphate ester is inosinic acid. Inosine easily permeates the cell membrane and, taking part in glycolysis and the TCA cycle via the pentose phosphate pathway, elevates the intracellular level of ATP and stimulates biosynthesis of nucleic acids. Adaptation of these metabolic processes activates the cell, and the nucleoside is applicable to various disorders. Inosine accumulates in tissue during periods of ischemia and has been shown to degranulate mast cells in the hamster cheek pouch via activation of an A3 receptor.⁵ Suppresses the increase of glucose and insulin in the blood.^{6,7} Inhibits cytokine production by a posttranscriptional mechanism.⁸

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