PRODUCT INFORMATION

Adenosine 5’-triphosphate (sodium salt)
Item No. 14498

CAS Registry No.: 987-65-5
Formal Name: adenosine 5’-(tetrahydrogen triphosphate), disodium salt
Synonyms: ATP, NSC 20268
MF: C_{10}H_{14}N_{5}O_{13}P_{3} • 2Na
FW: 551.1
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: \( \lambda_{\text{max}} \) 258 nm

Laboratory Procedures

For long term storage, we suggest that adenosine 5’-triphosphate (ATP) (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

ATP (sodium salt) is supplied as a crystalline solid. ATP (sodium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of ATP (sodium salt) be prepared by directly dissolving the ATP (sodium salt) compound in aqueous buffers. The solubility of ATP (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ATP is a central component of energy storage and metabolism in vivo, providing the metabolic energy to drive metabolic pumps and serving as a coenzyme in a wide array of enzymatic reactions. It is utilized in various cellular processes including, respiration, biosynthetic reactions, motility, and cell division.

Reference