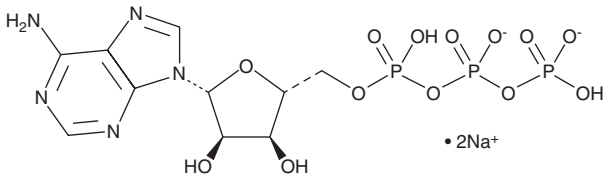
PRODUCT INFORMATION

Adenosine 5’-triphosphate (sodium salt) (solution)

Item No. 40182

CAS Registry No.: 987-65-5
Formal Name: adenosine 5′-(tetrahydrogen triphosphate), disodium salt
Synonyms: 5’-ATP, ATP, NSC 20268
MF: $C_{10}H_{14}N_5O_{13}P_3 \bullet 2Na$
FW: 551.1
Purity: ≥95%
Supplied as: An aqueous solution titrated with sodium hydroxide to a pH 7.3-7.5
Storage: -20°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Adenosine 5’-triphosphate (ATP) (sodium salt) (solution) is supplied as an aqueous solution titrated with sodium hydroxide to a pH 7.3-7.5. ATP (sodium salt) (solution) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the aqueous solution of ATP (sodium salt) (solution) should be diluted with the aqueous buffer of choice. The solubility of ATP (sodium salt) (solution) 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.[1] ATP is a substrate for kinases involved in cell signaling and of adenylate cyclases that produce the second messenger cAMP.[1] It is utilized in various cellular processes including, respiration, biosynthetic reactions, motility, and cell division.

Reference

1. Knowles, J.R. Enzyme-catalyzed phosphoryl transfer reactions. *Annu. Rev. Biochem.* **49,** 877-919 (1980).

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