

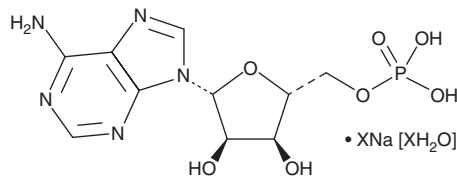
PRODUCT INFORMATION



Adenosine 5'-monophosphate (sodium salt hydrate)

Item No. 21094

CAS Registry No.: 149022-20-8
Formal Name: 5'-adenylic acid hydrate, sodium salt
Synonyms: 5'-AMP, AMP
MF: $C_{10}H_{14}N_5O_7P \cdot XNa [XH_2O]$
FW: 347.2
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 258 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥ 4 years



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

Laboratory Procedures

Adenosine 5'-monophosphate (AMP) is supplied as a crystalline solid. Aqueous solutions of AMP can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of AMP in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

AMP is a central nucleotide with functions in metabolism and cell signaling. It is formed by the cleavage of ATP to yield AMP and inorganic pyrophosphate as well as from IMP in 2 steps catalyzed by adenylosuccinate synthase and adenylosuccinate lyase.¹ AMP acts as an allosteric modulator of enzymes such as AMP-activated protein kinase (AMPK) and fructose-bisphosphate phosphatase.^{1,2}

References

1. Zubay, G. *Biochemistry* **1295**, (1988).
2. Winder, W.W. and Hardie, D.G. AMP-activated protein kinase, a metabolic master switch: Possible roles in type 2 diabetes. *Am. J. Physiol.* **277(1 Pt 1)**, E1-10 (1999).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/29/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM