2-Aminopurine nitrate salt

Product Number  A 2380
Store at Room Temperature

Product Description
Molecular Formula: C₅H₅N₅ • HNO₃
Molecular Weight: 198.1
CAS Number: 51-16-1
λ_max: 314 nm¹
Extinction coefficient: E^mM = 4.0 (0.1 M HCl)

This product is a highly mutagenic base analog.² It is a fluorescent analogue of adenine. It can be used as a substitute for adenosine, but it lacks the groups critical for hydrogen bonding. However, the fluorescent properties allow it to be used as a probe for monitoring the structure and dynamics of DNA hairpins and for detecting base unstacking. It has also been used as a fluorescent probe for DNA base flipping by methyltransferases.³

This product is also a known inhibitor of protein kinases. It selectively blocks the induction of transcription of several interferon-inducible human genes through double-stranded RNA.⁴ Induction of mRNA 561 and 6-16 in HeLaM cells by double-stranded RNA was completely inhibited by 10 mM 2-aminopurine, whereas cellular protein and RNA syntheses, as well as the induction of metallothionein mRNA by CsCl₂, were unaffected by 2-aminopurine.

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (50 mg/ml) with heating at 95 °C, yielding a clear, colorless solution.

Storage/Stability
A 150 mM solution of 2-aminopurine can be aliquoted and stored frozen.⁴ Before use, each aliquot needs to be thawed, heated, and mixed.

References

MWM/RXR  10/03

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