

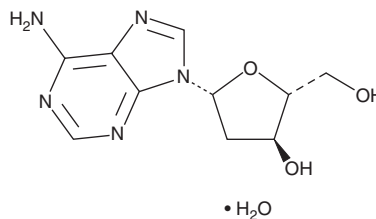
PRODUCT INFORMATION



2'-Deoxyadenosine (hydrate)

Item No. 27315

CAS Registry No.: 16373-93-6
Formal Name: 2'-deoxy-adenosine, monohydrate
MF: C₁₀H₁₃N₅O₃ • H₂O
FW: 269.3
Purity: ≥98%
UV/Vis.: λ_{max}: 260 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

2'-Deoxyadenosine (hydrate) is supplied as a solid. A stock solution may be made by dissolving the 2'-deoxyadenosine (hydrate) in the solvent of choice, which should be purged with an inert gas. 2'-Deoxyadenosine (hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 2'-deoxyadenosine (hydrate) in these solvents is approximately 10, 33, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 2'-deoxyadenosine (hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 2'-deoxyadenosine (hydrate) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2'-Deoxyadenosine is a deoxyribonucleoside and an intermediate in the purine nucleotide degradation pathway.¹ It is transported into cells *via* facilitated diffusion or formed within cells by degradation of S-adenosylhomocysteine or AMP and is removed from cells by purine metabolism or is converted into adenine nucleotides. 2'-Deoxyadenosine has been used in the characterization of DNA conformations and the synthesis of nucleoside analogs as antiviral agents.^{2,3}

References

1. Fox, I.H. and Kelley, W.N. The role of adenosine and 2'-deoxyadenosine in mammalian cells. *Annu. Rev. Biochem.* **47**, 655-686 (1978).
2. Katahira, M., Nishimura, Y., Tsuboi, M., *et al.* Local and overall conformations of DNA double helices with the A - T base pairs. *Biochim. Biophys. Acta* **867(4)**, 256-267 (1986).
3. Ikejiri, M., Oshima, T., Fukushima, A., *et al.* Synthesis and evaluation of 5'-modified 2'-deoxyadenosine analogues as anti-hepatitis C virus agents. *Bioorg. Med. Chem. Lett.* **18(16)**, 4638-4641 (2008).

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.

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