

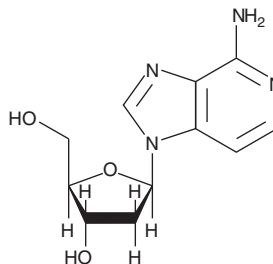
# PRODUCT INFORMATION



## 3-Deaza-2'-deoxyadenosine

Item No. 9000786

**CAS Registry No.:** 78582-17-9  
**Formal Name:** 1-(2-deoxy-β-D-erythro-pentofuranosyl)-1H-imidazo[4,5-c]pyridin-4-amine  
**Synonym:** c3dA  
**MF:** C<sub>11</sub>H<sub>14</sub>N<sub>4</sub>O<sub>3</sub>  
**FW:** 250.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 212, 266 nm  
**Supplied as:** A crystalline 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

3-Deaza-2'-deoxyadenosine is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-deaza-2'-deoxyadenosine in the solvent of choice, which should be purged with an inert gas. 3-Deaza-2'-deoxyadenosine is soluble in organic solvents such as DMSO, and dimethyl formamide. The solubility of 3-deaza-2'-deoxyadenosine in these solvents is approximately 20 and 5 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 3-deaza-2'-deoxyadenosine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 3-deaza-2'-deoxyadenosine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

3-Deaza-2'-deoxyadenosine strongly inhibits lymphocyte-mediated cytolysis with low cytotoxicity when applied at 100 μM.<sup>1</sup> This nucleoside can also be used to evaluate the role of the adenine N3 nitrogen in DNA structure and function.<sup>2,3</sup>

### References

1. Krenitsky, T.A., Rideout, J.L., Chao, E.Y., *et al.* Imidazo(4,5-c)pyridines (3-Deazapurines) and their nucleosides as immunosuppressive and antiinflammatory agents. *J. Med. Chem.* **29(1)**, 138-43 (1986).
2. Maki, A.S., Kim, T., and Kool, E.T. Direct comparison of A- and T-strand minor groove interactions in DNA curvature at A tracts. *Biochemistry* **43(4)**, 1102-10 (2004).
3. Hendrickson, C.L., Devine, K.G., and Benner, S.A. Probing minor groove recognition contacts by DNA polymerases and reverse transcriptases using 3-deaza-2'-deoxyadenosine. *Nucleic Acids Res.* **32(7)**, 2241-50 (2004).

#### 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

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