

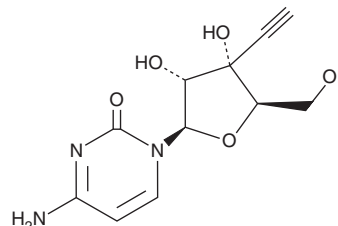
# PRODUCT INFORMATION



## Ethynylcytidine

Item No. 27681

**CAS Registry No.:** 180300-43-0  
**Formal Name:** 3'-C-ethynyl-cytidine  
**Synonyms:** ECyD, 1-(3-C-Ethynyl-β-D-ribofuranosyl)cytosine, TAS-106  
**MF:** C<sub>11</sub>H<sub>13</sub>N<sub>3</sub>O<sub>5</sub>  
**FW:** 267.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 240, 273 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

Ethynylcytidine is supplied as a solid. A stock solution may be made by dissolving the ethynylcytidine in the solvent of choice, which should be purged with an inert gas. Ethynylcytidine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ethynylcytidine in these solvents is approximately 5 mg/ml.

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 ethynylcytidine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of ethynylcytidine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ethynylcytidine (ECyD) is a nucleoside analog with anticancer activity.<sup>1</sup> It is cytotoxic to A549, NUGC-3, HT-29, MIA PaCa-2, and MCF-7 cancer cells (IC<sub>50</sub>s = 0.114, 1.032, 0.539, 0.198, and 0.326 μM, respectively).<sup>1</sup> ECyD (0.25 mg/kg per day) reduces tumor growth in CADO-LC11 lung, PAN-12 pancreas, AZ-521 stomach, and CO-3 colon cancer mouse xenograft models.<sup>2</sup>

### References

1. Takatori, S., Kanda, H., Takenaka, K., *et al.* Antitumor mechanisms and metabolism of the novel antitumor nucleoside analogues, 1-(3-C-ethynyl-β-D-ribo-pentofuranosyl)cytosine and 1-(3-C-ethynyl-β-D-ribo-pentofuranosyl)uracil. *Cancer Chemother. Pharmacol.* **44**(2), 97-104 (1999).
2. Shimamoto, Y., Fujioka, A., Kazuno, H., *et al.* Antitumor activity and pharmacokinetics of TAS-106, 1-(3-C-ethynyl-β-D-ribo-pentofuranosyl)cytosine. *Jpn. J. Cancer Res.* **92**(3), 343-351 (2001).

#### 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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