

# PRODUCT INFORMATION



## Deacetylavidomycin

Item No. 27991

**CAS Registry No.:** 88580-27-2  
**Formal Name:** 4-[3,6-dideoxy-3-(dimethylamino)- $\beta$ -D-galactopyranosyl]-8-ethenyl-1-hydroxy-10,12-dimethoxy-6H-benzo[d]naphtho[1,2-b]pyran-6-one

**MF:** C<sub>29</sub>H<sub>31</sub>NO<sub>8</sub>

**FW:** 521.6

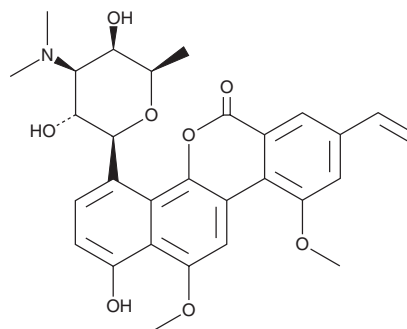
**Purity:**  $\geq 95\%$

**Supplied as:** A solid

**Storage:** -20°C

**Stability:**  $\geq 4$  years

**Item Origin:** Bacterium/*Streptomyces* sp.



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

### Laboratory Procedures

Deacetylavidomycin is supplied as a solid. A stock solution may be made by dissolving the deacetylavidomycin in the solvent of choice, which should be purged with an inert gas. Deacetylavidomycin is soluble in organic solvents such as DMSO and dimethyl formamide. Deacetylavidomycin is also moderately soluble in ethanol and methanol.

Deacetylavidomycin is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

Deacetylavidomycin is a microbial metabolite that has been found in *Streptomyces* and has light-dependent antibiotic and anticancer activities.<sup>1-3</sup> It is active against Gram-positive bacteria, including *B. subtilis*, *S. aureus*, *S. epidermidis*, and *E. faecalis* (MICs = 0.78-1.56 and  $<0.006$ -0.049  $\mu\text{g/ml}$  in the absence and presence of fluorescent light, respectively).<sup>2</sup> Deacetylavidomycin also reduces colony formation by human colon cancer cells in a clonogenic assay in a light-dependent manner.<sup>3</sup>

### References

1. Arai, M., Tomoda, H., Tabata, N., *et al.* Deacetylavidomycin M, a new inhibitor of IL-4 signal transduction, produced by *Streptomyces* sp. WK-6326. II. Structure elucidation. *J. Antibiot. (Tokyo)* **54(7)**, 562-566 (2001).
2. Narita, T., Matsumoto, M., Mogi, K., *et al.* Deacetylavidomycin N-oxide, a new antibiotic. Taxonomy and fermentation of the producing organism and isolation, structure and biological properties of the antibiotic. *J. Antibiot. (Tokyo)* **42(3)**, 347-356 (1989).
3. Greenstein, M., Monji, T., Yeung, R., *et al.* Light-dependent activity of the antitumor antibiotics ravidomycin and desacetylavidomycin. *Antimicrob. Agents Chemother.* **29(5)**, 861-866 (1986).

#### 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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