

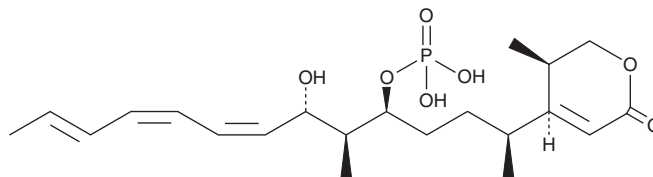
# PRODUCT INFORMATION



## Cytostatin

Item No. 32891

**CAS Registry No.:** 682329-63-1  
**Formal Name:** (5S,6S)-5,6-dihydro-6-  
[[1S,4S,5S,6S,7Z,9Z,11E]-6-hydroxy-  
1,5-dimethyl-4-(phosphonoxy)-7,9,11-  
tridecatrien-1-yl]-5-methyl-2H-pyran-2-one  
**Synonyms:** Antibiotic MJ 654NF4, (+)-Cytostatin,  
NSC 675266  
**MF:** C<sub>21</sub>H<sub>33</sub>O<sub>7</sub>P  
**FW:** 428.5  
**Purity:** ≥75% by HPLC (254 nm)  
**Supplied as:** A powder  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Bacterium/*Streptomyces* sp. MJ654-NF4



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

### Laboratory Procedures

Cytostatin is supplied as a powder. A stock solution may be made by dissolving the cytostatin in the solvent of choice, which should be purged with an inert gas. Cytostatin is soluble in methanol, DMSO, chloroform, and ethyl acetate. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Cytostatin is a bacterial metabolite that has been found in *Streptomyces* and has enzyme inhibitory and anticancer activities.<sup>1,2</sup> It inhibits protein phosphatase 2A (PP2A; IC<sub>50</sub> = 0.09 µg/ml) and is selective for PP2A over PP1, PP2B, and alkaline phosphatase at 100 µg/ml.<sup>1</sup> Cytostatin inhibits the adhesion of B16/F10 murine melanoma cells to laminin and type IV collagen (IC<sub>50</sub>s = 1.3 and 1.4 µg/ml, respectively).<sup>2</sup> *In vivo*, cytostatin (1.25 mg/kg, i.p.) reduces the number of lung metastases in a B16/F10 murine melanoma model.

### References

1. Kawada, M., Amemiya, M., Ishizuka, M., *et al.* Cytostatin, an inhibitor of cell adhesion to extracellular matrix, selectively inhibits protein phosphatase 2A. *Biochim. Biophys. Acta* **1452(2)**, 209-217 (1999).
2. Amemiya, M., Ueno, M., Osono, M., *et al.* Cytostatin, a novel inhibitor of cell adhesion to components of extracellular matrix produced by *Streptomyces* sp. MJ654-NF4. I. Taxonomy, fermentation, isolation and biological activities. *J. Antibiot. (Tokyo)* **47(5)**, 536-540 (1994).

#### 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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