

## Product Data Sheet

Product Name: Echinospurin

Cat. No.: GC47279

### Chemical Properties

Cas. No. 79127-35-8

SMILES O[C@@]12[C@]3([H])[C@@](C=C2)([H])[C@H](OC1=O)OC(C(N)=O)=C3

Formula C<sub>10</sub>H<sub>9</sub>NO<sub>5</sub>

M.Wt 223.2

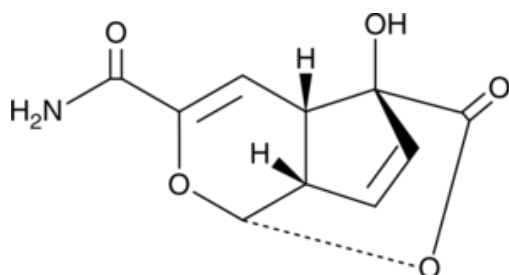
Solubility DMF: soluble, Methanol:  
soluble, Water: soluble

Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



### Background

Echinospurin is a bacterial metabolite originally isolated from *Streptomyces echinosporus* that has antibacterial and anticancer activities.<sup>1,2,3</sup> It is active against *P. vulgaris*, *S. typhosa*, *S. sonnei*, *E. coli*, and *B. subtilis* (MICs = 100, 100, 100, 200, and 400 µg/ml, respectively).<sup>1</sup> Echinospurin induces cell cycle arrest at the G<sub>2</sub>/M phase and apoptosis in, as well as inhibits proliferation of, HCT-15 human colorectal cancer cells (IC<sub>50</sub>s = 1.7, 1.75, and 247 µM, respectively).<sup>2</sup> It inhibits tumor growth in murine P388 leukemia and Meth 1 fibrosarcoma models when administered at doses ranging from 10 to 80 mg/kg.<sup>3</sup>

1. Sato, T., Kawamoto, I., Oka, T., et al. A new antibiotic echinosporin (XK-213) - producing organism, isolation and characterization. *J. Antibiot. (Tokyo)* 35(3):266-271 (1982) 2. Cui, C.B., Liu, H.B., Gu, J.Y.,

**Caution: Product has not been fully validated for medical applications. For research use only.**

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et al. Echinospirins as new cell cycle inhibitors and apoptosis inducers from marine-derived  
*Streptomyces albogriseolus* Fitoterapia 78(3)238-240(2007) 3. Morimoto, M., and Imai, R. Antitumor  
activity of echinosporin. J. Antibiot. (Tokyo) 38(4)490-495(1985)

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