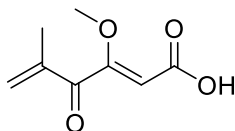


## Penicillic acid

Code No.: **BIA-P2960**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms :

### Specifications

|                   |   |
|-------------------|---|
| CAS #             | : <b>90-65-3</b>                                    |
| Molecular Formula | : <b>C<sub>8</sub>H<sub>10</sub>O<sub>4</sub></b>   |
| Molecular Weight  | : <b>170.2</b>                                      |
| Source            | : <b><i>Penicillium</i> sp.</b>                     |
| Appearance        | : <b>Yellow residue</b>                             |
| Purity            | : <b>&gt;95% by HPLC</b>                            |
| Long Term Storage | : <b>-20°C</b>                                      |
| Solubility        | : <b>Soluble in ethanol, methanol, DMF or DMSO.</b> |

### Application Notes

Penicillic acid is a toxic metabolite of various *Aspergillus* spp., *Penicillium* spp. and a marine-derived *Exophiala* sp. discovered in the early 1900s. Its structure was reported in 1936 by Raistrick and co-workers. Penicillic acid exists as a tautomeric butenolide in solution. Penicillic acid has broad biological activity, as an antitumor, antiviral, antibacterial and quorum sensing active. Penicillic acid is a potent inhibitor of alginate biosynthesis with MIC of 6 µg/mL for 86% inhibition of alginate production. Penicillic acid also inhibits LPS-induced NO production and NF-κB activation.

### References

1. Tautomerism of penicillic acid. Munday C.W. *Nature* 1949, 163, 443.
2. Antitumor and antiviral properties of penicillic acid. Suzuki S. et al. *Agr Biol Chem.* 1971, 35, 285.
3. Identity and effects of quorum-sensing inhibitors produced by *Penicillium* species. Rasmussen T.B. et al. *Microbiol.* 2005, 151, 1325.
4. A search for *Pseudomonas* alginate biosynthesis inhibitors from microbial metabolites. Nakagawa A. et al. *J Antibiot.* 1997, 50, 286.
5. Inhibition of NF-kappa B activation by penicillic acid and dihydropenicillic acid isolated from fungi. Tachibana M. et al. *Heterocycles* 2008, 76, 1561.