

PRODUCT DATA SHEET

Code No.: BIA-A2917

Pack sizes: 0.5 mg, 2.5 mg

Anhydrofulvic acid

Synonyms :

Specifications

CAS # : 95730-85-1 Molecular Formula : $C_{14}H_{10}O_{7}$ Molecular Weight : 290.2

Source : Cercospora sp.

Appearance : Yellow solid

Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Anydrofulvic acid is produced by several Penicillium and other fungal species. Anhydrofulvic acid has an essentially planar chromone ring system, with a coplanar carboxylic acid group. Anhydrofulvic acid possesses potent antifungal activity, inhibiting both endogenous and exogenous cellular respiration and strongly restricting biofilm production and hyphae formation in C. albicans by down-regulating several biofilm and morphogenesis-related genes. Anhydrofulvic acid is a collagenase inhibitor and has antiinflammatory and weak cytotoxic activity.

References

- 1. 7,8-Dihydroxy-3-methyl-10-oxo-1H,10H-pyrano-[4,3-b]-chromene-9-carboxylic acid. Wang J.F. et al. Acta Cryst. 2003, E59.
- Mode of action of anhydrofulvic acid against Candida utilis ATCC42402 under acidic condition. Fujita K-I. et al. J Antibiot. 1999, 52, 628.
- 3. A secondary metabolite of Cercospora sp., associated with Rosa damascena Mill., inhibits proliferation, biofilm production, ergosterol synthesis and other virulence factors in Candida albicans. Bashir A. et al. Microb Ecol. 2023, 85, 1276.
- 4. Fermentative manufacture of CD4 binding agents and inhibitors of collagenase and protein kinase C. Hylands P.J. et al. WO9318173 A2 1993-09-16.
- 5. PTP1B inhibitory and anti-inflammatory effects of secondary metabolites isolated from the marine-derived fungus Penicillium sp. JF-55. Lee D-S. et al. Marine Drugs 2013, 11, 1409.

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