

Product Data Sheet

Product Name: Erbstatin
Cat. No.: GC52516

Chemical Properties

Cas. No. 100827-28-9

SMILES O=CN/C=C/C1=C(C=CC(O)=C1)O

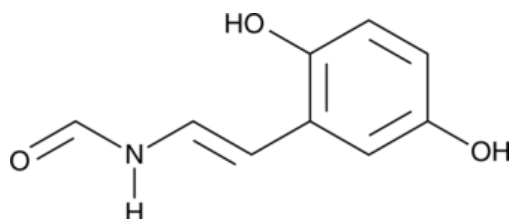
Formula C₉H₉NO₃ M.Wt 179.2

Solubility Acetone: Soluble, DMSO: Soluble, Methanol: Soluble
Storage -20°C

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

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

Structure



Background

Erbstatin is an inhibitor of EGF receptor-associated tyrosine kinase that has been found in *Streptomyces*.^{1,2} It is selective for EGF receptor-associated tyrosine kinase over protein kinase A (PKA) and PKC, but does inhibit phosphatidylinositol kinase (IC₅₀s = 0.2, 100, >179, and 25 µg/ml, respectively).¹ Erbstatin (10 µg/ml) induces apoptosis and DNA fragmentation in L1210 murine skin lymphocytic leukemia cells.² It inhibits LPS-induced production of prostaglandin F_{2α} and nitrite in J774.2 macrophages in a concentration-dependent manner.³ Erbstatin (4 mg/animal) reduces tumor growth in an MCF-7 breast cancer mouse xenograft model when used in combination with the iron chelator foroxymithine, which prevents its degradation.⁴

1. Onoda, T., Iinuma, H., Sasaki, Y., et al. Isolation of a novel tyrosine kinase inhibitor, lavendustin A, from *Streptomyces griseolavendus*. *J. Nat. Prod.* 52(6):1252-1257 (1989).
2. Simizu, S., Imoto, M., and

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

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Umezawa, K. Induction of apoptosis by erbstatin in mouse leukemia L1210 cells Biosci. Biotech. Biochem. 58(9)1549-1552(1994) 3. Akarasereenont, P., Mitchell, J.A., Appleton, I., et al. Involvement of tyrosine kinase in the induction of cyclo-oxygenase and nitric oxide synthase by endotoxin in cultured cells Br. J. Pharmacol. 113(4)1522-1528(1994) 4. Toi, M., Mukaida, H., Wada, T., et al. Antineoplastic effect of erbstatin on human mammary and esophageal tumors in athymic nude mice Eur. J. Cancer 26(6)722-724(1990)

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