

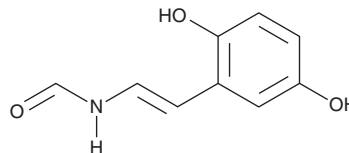
PRODUCT INFORMATION



Erbstatin

Item No. 37706

CAS Registry No.: 100827-28-9
Formal Name: N-[(1E)-2-(2,5-dihydroxyphenyl)ethenyl]-formamide
Synonym: Antibiotic MH 435A
MF: C₉H₉NO₃
FW: 179.2
Purity: ≥90%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Erbstatin is supplied as a solid. A stock solution may be made by dissolving the erbstatin in the solvent of choice, which should be purged with an inert gas. Erbstatin is soluble in methanol, DMSO, and acetone.

Description

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} (PGF_{2α}; Item Nos. 16010 | 16020) 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

References

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 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).

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.

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