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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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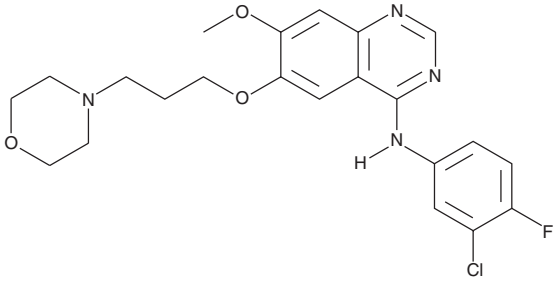
PRODUCT INFORMATION

Gefitinib

Item No. 13166

CAS Registry No.:	184475-35-2
Formal Name:	N-(3-chloro-4-fluorophenyl)-7-methoxy-6-[3-(4-morpholinyl)propoxy]-4-quinazolinamine
Synonym:	ZD 1839
MF:	$C_{22}H_{24}ClFN_4O_3$
FW:	446.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 205, 226, 250, 332 nm
Supplied as:	A crystalline 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

Gefitinib is supplied as a crystalline solid. A stock solution may be made by dissolving the gefitinib in the solvent of choice, which should be purged with an inert gas. Gefitinib is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of gefitinib in ethanol is approximately 0.3 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Gefitinib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gefitinib should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Gefitinib has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Gefitinib is an EGFR inhibitor (IC_{50}s = 0.023-0.079 µM).[2] It inhibits colony formation of GEO colon, ZR-75-1 and MCF-10A breast, and OVCAR-3 ovarian cancer cell lines in soft agar assays (IC_{50}s = 0.2-0.4 µM).[1] Gefitinib (0.1 to 1 µM) induces apoptosis and inhibits EGFR autophosphorylation in the same cells. *In vivo*, gefitinib (1.25, 2.5, and 5 mg/kg) reduces tumor volume and increases survival in a GEO mouse xenograft model. Formulations containing gefitinib have been used in the treatment of non-small cell lung cancer (NSCLC).

References

1. Ciardiello, F., Caputo, R., Bianco, R., *et al*. Antitumor effect and potentiation of cytotoxic drugs activity in human cancer cells by ZD-1839 (Iressa), an epidermal growth factor receptor-selective tyrosine kinase inhibitor. *Clin. Cancer Res.* **6(5)**, 2053-2063 (2000).
2. Mendelsohn, J. and Baselga, J. The EGF receptor family as targets for cancer therapy. *Oncogene* **19(56)**, 6550-6565 (2000).

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