



LKT Laboratories, Inc.

Gefitinib

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Product Information

Product ID G1721

CAS No. 184475-35-2

Chemical Name N-(3-chloro-4-fluorophenyl)-7-methoxy-6-(3-morpholin-4-ylpropoxy)quinazolin-4-amine

Synonym

Formula C₂₂H₂₄ClFN₄O₃

Formula Wt. 446.90

Melting Point 212-214°C

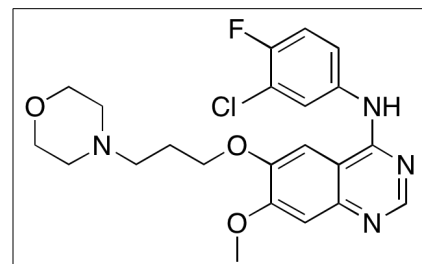
Purity ≥98%

Solubility DMSO (20 mg/ml), DMF (20 mg/ml)

Store Temp Ambient

Ship Temp Ambient

Description Gefitinib is an anticancer chemotherapeutic compound that inhibits mutant isoforms of EGFR. Across a variety of cancer cell lines, gefitinib increases poly(ADP)-ribose polymerase (PARP) cleavage and apoptosis, resulting in inhibition of cell growth. Gefitinib also induces expression of PPAR γ in cellular models, likely through activation of transcription factor CCAAT/enhancer binding protein β (CEBP- β). Gefitinib's inhibition of EGFR also results in inhibition of heat shock protein 70 (HSP70), which can exacerbate pulmonary fibrosis. Additionally, gefitinib increases phosphorylation of p38 MAPK and JNK, inducing apoptosis in keratinocytes. This compound also promotes differentiation of acute myelogenous leukemia cells in vitro.



Bulk quantities available upon request

Product ID	Size
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G1721	100 mg
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G1721	250 mg
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G1721	1 g
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References Mansure JJ, Nassim R, Chevalier S, et al. A novel mechanism of PPAR gamma induction via EGFR signalling constitutes rational for combination therapy in bladder cancer. PLoS One. 2013;8(2):e55997. doi: 10.1371/journal.pone.0055997. Erratum in: PLoS One. 2013; 8(5). PMID: 23409107.

Yoshida T, Yamada K, Azuma K, et al. Comparison of adverse events and efficacy between gefitinib and erlotinib in patients with non-small-cell lung cancer: a retrospective analysis. Med Oncol. 2013 Mar;30(1):349. PMID: 23263831.

Wan S, Wright DW, Coveney PV. Mechanism of drug efficacy within the EGF receptor revealed by microsecond molecular dynamics simulation. Mol Cancer Ther. 2012 Nov;11(11):2394-400. PMID: 22863610.

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Stegmaier K, Corsello SM, Ross KN, et al. Gefitinib induces myeloid differentiation of acute myeloid leukemia. Blood. 2005 Oct 15;106(8):2841-8. PMID: 15998836.

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Caution: This product is intended for laboratory and research use only. It is not for human or drug use.