Print Date: Aug 17th 2021

Certificate of Analysis

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Product Name: **Erlotinib Hydrochloride** **Catalog No.: 7194** **Batch No.: 1**

CAS Number: 183319-69-9

IUPAC Name: *N*-(3-Ethynylphenyl)-6,7-bis(2-methoxyethoxy)-4-quinazolinamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{23}N_3O_4.HCl.$

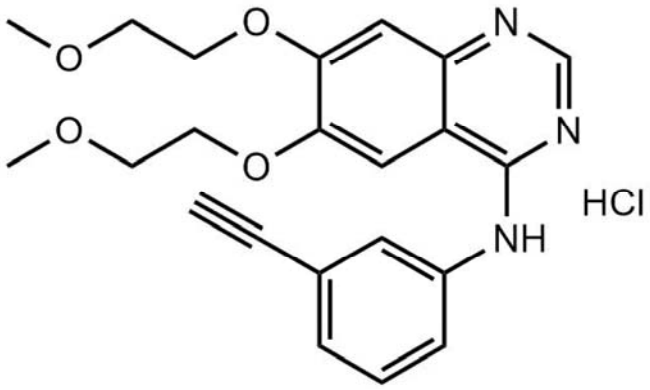
Batch Molecular Weight: 429.9

Physical Appearance: White solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.47	5.63	9.77
Found	61.43	5.64	9.76

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

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Description:

Erlotinib hydrochloride is a reversible, potent EGFR tyrosine kinase inhibitor (IC_{50} = 2 nM); it reduces EGFR autophosphorylation in intact tumor cells (IC_{50} = 20 nM). Erlotinib is selective for cell lines showing PC-9 and H3255 mutations (IC_{50} values are 7 and 12 nM, respectively, sparing wild-type and T790 mutant EGFR. Erlotinib shows antiproliferative effects in cancer cell lines in vitro and promotes differentiation of urothelial organoids. Orally bioavailable.

Physical and Chemical Properties:

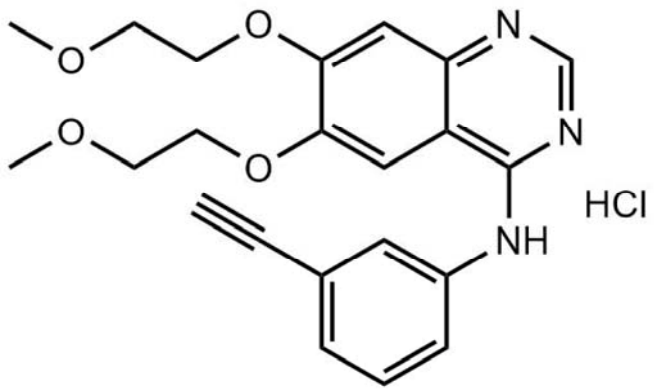
Batch Molecular Formula: $C_{22}H_{23}N_3O_4$.HCl.

Batch Molecular Weight: 429.9

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Santos *et al* (2019) Urothelial organoids originating from Cd49f^{high} mouse stem cells display Notch-dependent differentiation capacity. Nat.Commun. ***10***. PMID: 31562298.

Moyer *et al* (1997) Induction of apoptosis and cell cycle arrest by CP-358,774, an inhibitor of epidermal growth factor receptor tyrosine kinase. Cancer Res. ***57*** 4838. PMID: 9354447.