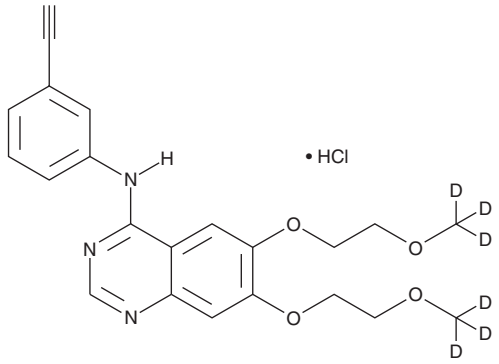
PRODUCT INFORMATION

Erlotinib-d_6 (hydrochloride)

Item No. 22101



CAS Registry No.:	1189953-78-3
Formal Name:	N-(3-ethynylphenyl)-6,7-*bis*[2-(methoxy-d_3)ethoxy]-4-quinazolinamine, monohydrochloride
MF:	$C_{22}H_{17}D_6N_3O_4 \bullet HCl$
FW:	435.9
Chemical Purity:	≥95% (Erlotinib)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_6); ≤1% d_0
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

Erlotinib-d_6 (hydrochloride) contains six deuterium atoms located on the methoxy group. It is intended for use as an internal standard for the quantification of erlotinib (Item No. 10483) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Erlotinib-d_6 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the erlotinib-d_6 (hydrochloride) in the solvent of choice. Erlotinib-d_6 (hydrochloride) is slightly soluble in methanol and DMSO (heated).

Description

Erlotinib-d_6 is intended for use as an internal standard for the quantification of erlotinib (Item Nos. 10483 | 35517) by GC- or LC-MS. Erlotinib is an EGFR inhibitor (K_i = 2.7 nM).[1] It is greater than 1,000-fold selective for EGFR over Src and Abl at 0.1 µM.[2] Erlotinib induces caspase-3 and -7 activity in NCI H358 non-small cell lung cancer (NSCLC) cells when used at a concentration of 1 µM.[3] Erlotinib (25 mg/kg) reduces EGF-induced EGFR autophosphorylation in an HN-5 head and neck cancer mouse xenograft model.[2] Formulations containing erlotinib have been used in the treatment of various cancers.

References

1. Ciardiello, F. and Tortora, G. A novel approach in the treatment of cancer: Targeting the epidermal growth factor receptor. *Clin. Cancer Res.* **7(10)**, 2958-2970 (2001).
2. Moyer, J.D., Barbacci, E.G., Iwata, K.K., *et al.* Induction of apoptosis and cell cycle arrest by CP-358,774, an inhibitor of epidermal growth factor receptor tyrosine kinase. *Cancer Res.* **57(21)**, 4838-4848 (1997).
3. Herbst, R.S. and Bunn, P.A., Jr. Targeting the epidermal growth factor receptor in non-small cell lung cancer. *Clin. Cancer Res.* **9(16)**, 5813-5824 (2003).

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