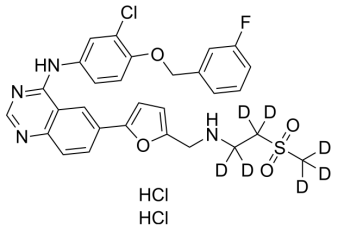
Lapatinib-d_7 dihydrochloride

Cat. No.:	HY-50898S1
Molecular Formula:	$C_{29}H_{21}D_7Cl_3FN_4O_4S$
Molecular Weight:	661.02
Target:	EGFR; Autophagy; Ferroptosis; Isotope-Labeled Compounds
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Autophagy; Apoptosis; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Lapatinib-d_7 (dihydrochloride) is the deuterium labeled Lapatinib dihydrochloride. Lapatinib (GW572016) dihydrochloride is a potent inhibitor of the ErbB-2 and EGFR tyrosine kinase domains with IC50 values against purified EGFR and ErbB-2 of 10.2 and 9.8 nM, respectively[1].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Rusnak DW, et al. The effects of the novel, reversible epidermal growth factor receptor/ErbB-2 tyrosine kinase inhibitor, GW2016, on the growth of human normal and tumor-derived cell lines in vitro and in vivo. Mol Cancer Ther. 2001 Dec;1(2):85-94

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