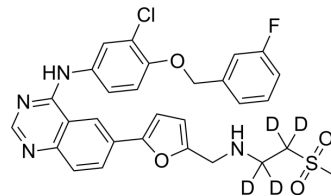


Lapatinib-d₄

Cat. No.:	HY-50898S		
CAS No.:	1184263-99-7		
Molecular Formula:	C ₂₉ H ₂₂ D ₄ ClFN ₄ O ₄ S		
Molecular Weight:	585.08		
Target:	EGFR; Autophagy; Ferroptosis		
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Autophagy; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Lapatinib-d ₄ is the deuterium labeled Lapatinib (HY-50898). Lapatinib is a potent inhibitor of the ErbB-2 and EGFR tyrosine kinase domains with IC ₅₀ values against purified EGFR and ErbB-2 of 10.2 and 9.8 nM, respectively[1][2].
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 Feb;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.

Caution: Product has not been fully validated for medical applications. For research use only.

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