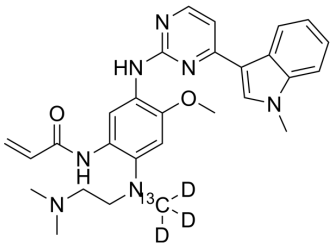
Osimertinib-$^{13}C,d_3$

Cat. No.:	HY-15772S1
CAS No.:	2254100-49-5
Molecular Formula:	$C_{27}{}^{13}CH_{30}D_3N_7O_2$
Molecular Weight:	503.62
Target:	EGFR
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	Osimertinib-$^{13}C,d_3$ is the deuterium and ^{13}C labeled Osimertinib. Osimertinib (AZD9291) is a covalent, orally active, irreversible, and mutant-selective EGFR inhibitor with an apparent IC50 of 12 nM against L858R and 1 nM against L858R/T790M, respectively.
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]. Cross DA, et al. AZD9291, an irreversible EGFR TKI, overcomes T790M-mediated resistance to EGFR inhibitors in lung cancer. Cancer Discov. 2014 Sep;4(9):1046-61.;Hirano T, et al. Pharmacological and Structural Characterizations of Naquotinib, a Novel Third

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