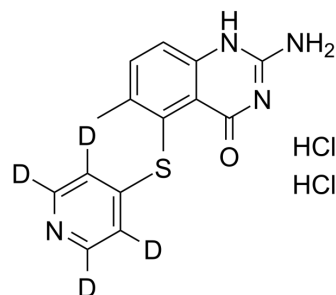


Nolatrexed-d4 dihydrochloride

Cat. No.:	HY-108474S
Molecular Formula:	C ₁₄ H ₁₀ D ₄ Cl ₂ N ₄ OS
Molecular Weight:	361.28
Target:	Thymidylate Synthase
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Nolatrexed-d4 dihydrochloride (AG 337-d4) is the deuterium labeled Nolatrexed dihydrochloride. Nolatrexed dihydrochloride (AG 337) is a non-competitive lipophilic inhibitor of thymidylate synthase, interacts at the folate cofactor binding site of the enzyme, with a K _i of 11 nM for human thymidylate synthase ^[1] . Nolatrexed dihydrochloride (AG 337) induces cell cycle arrest in S phase of cancer cells. Anti-cancer activity ^[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;53(2):211-216.
- [2]. Webber S, et al. AG337, a novel lipophilic thymidylate synthase inhibitor: in vitro and in vivo preclinical studies. *Cancer Chemother Pharmacol.* 1996;37(6):509-17.
- [3]. McGuire JJ, et al. Characterization of the effect of AG337, a novel lipophilic thymidylate synthase inhibitor, on human head and neck and human leukemia cell lines.

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

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