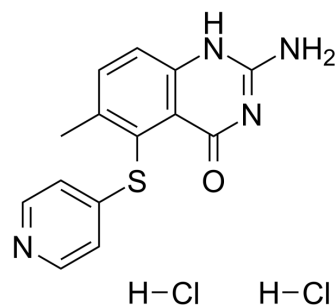


Nolatrexed dihydrochloride

Cat. No.:	HY-108474
CAS No.:	152946-68-4
Molecular Formula:	C ₁₄ H ₁₄ Cl ₂ N ₄ OS
Molecular Weight:	357.26
Target:	Thymidylate Synthase
Pathway:	Apoptosis
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (139.95 mM; Need ultrasonic)
DMSO : 41.67 mg/mL (116.64 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.7991 mL	13.9954 mL	27.9908 mL
	5 mM	0.5598 mL	2.7991 mL	5.5982 mL
	10 mM	0.2799 mL	1.3995 mL	2.7991 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 25 mg/mL (69.98 mM); Clear solution; Need ultrasonic and warming
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (5.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (5.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (5.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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].

IC₅₀ & Target

K_i: 11 nM (Human Thymidylate Synthase)^[1]

CUSTOMER VALIDATION

- Commun Biol. 2022 Jun 23;5(1):619.

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REFERENCES

- [1]. 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.
- [2]. 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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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