Proteins

Product Data Sheet

Altretamine

Cat. No.: HY-B0181 CAS No.: 645-05-6 Molecular Formula: $C_9H_{18}N_6$ Molecular Weight: 210.28

Target: DNA Alkylator/Crosslinker Pathway: Cell Cycle/DNA Damage Storage: Powder -20°C 3 years

2 years

In solvent -80°C 2 years

-20°C 1 year

SOLVENT & SOLUBILITY

In Vitro DMSO: 8.33 mg/mL (39.61 mM; Need ultrasonic)

H₂O: < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.7556 mL	23.7778 mL	47.5556 mL
	5 mM	0.9511 mL	4.7556 mL	9.5111 mL
	10 mM	0.4756 mL	2.3778 mL	4.7556 mL

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

In Vivo 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 0.83 mg/mL (3.95 mM); Clear solution

> 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 0.83 mg/mL (3.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Altretamine is an alkylating antineoplastic agent.	
In Vitro	Altretamine is an antineoplastic agent $^{[1]}$. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Altretamine (100, 133 mg/kg, ip.) in combination with Irofulven, increases the antitumor effect in mice bearing MV522 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

PROTOCOL

Animal Administration [1]

Mice^[1]

Balb/c nu/nu 4 week old female mice weighing 18-22 g, receive s.c. injections of 8-10 million MV522 cells. Altretamine is administered i.p. three times a week for 3 weeks, starting on day 10 after tumor implantation. Tumor size is measured in two perpendicular diameters and tumor weight (TW) estimated according to the formula: $w = [(width)^2 \times length/2]$. Altretamine is prepared as stock solutions of 1-10 mg/mL in 40% DMSO/normal saline and diluted with 10% DMSO/normal saline as required^[1].

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CUSTOMER VALIDATION

• J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

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REFERENCES

[1]. Kelner MJ, et al. Synergy of irofulven in combination with other DNA damaging agents: synergistic interaction with altretamine, alkylating, and platinum-derived agents in the MV522 lung tumor model. Cancer Chemother Pharmacol. 2008 Dec;63(1):19-26.

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

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