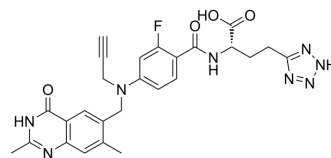


Plevitrexed

Cat. No.:	HY-13728		
CAS No.:	153537-73-6		
Molecular Formula:	C ₂₆ H ₂₅ FN ₈ O ₄		
Molecular Weight:	532.53		
Target:	Thymidylate Synthase		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (187.78 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		1.8778 mL	9.3891 mL	18.7783 mL
		5 mM		0.3756 mL	1.8778 mL	3.7557 mL
10 mM			0.1878 mL	0.9389 mL	1.8778 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: 2.5 mg/mL (4.69 mM); Clear solution; Need ultrasonic					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (4.69 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Plevitrexed (ZD 9331; BGC 9331) is an orally active and potent thymidylate synthase (TS) inhibitor with a K _i of 0.44 nM. Plevitrexed is taken up via the α-folate receptor as well as the reduced folate carrier. Plevitrexed is used for gastric cancer in clinical ^{[1][2][3]} . Plevitrexed is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.
In Vitro	ZD9331 inhibits the transport of [³ H]-methotrexate into L1210 and W1L2 cells with a K _i of -1 μM ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Tochowicz A, et al. Development and binding mode assessment of N-[4-[2-propyn-1-yl]-(6S)-4,6,7,8-tetrahydro-2-(hydroxymethyl)-4-oxo-3H-cyclopenta[g]quinazolin-6-yl]amino]benzoyl]-L-γ-glutamyl-D-glutamic acid (BGC 945), a novel thymidylate synthase inhibitor that targets tumor cells. J Med Chem. 2013 Jul 11;56(13):5446-55.
- [2]. A. Thomas, et al. A phase I/II study of plevitrexed with nutritional vitamin supplementation in gastric cancer.
- [3]. Marsham PR, et al. Design and synthesis of potent non-polyglutamatable quinazoline antifolate thymidylate synthase inhibitors. J Med Chem. 1999 Sep 23;42(19):3809-20.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA