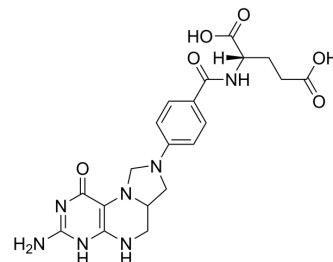


Folitixorin

Cat. No.:	HY-14769
CAS No.:	3432-99-3
Molecular Formula:	C ₂₀ H ₂₃ N ₇ O ₆
Molecular Weight:	457.44
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	-80°C, protect from light, stored under nitrogen



SOLVENT & SOLUBILITY

In Vitro

H₂O : 5 mg/mL (10.93 mM; ultrasonic and warming and heat to 60°C)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.1861 mL	10.9304 mL	21.8608 mL
	5 mM		0.4372 mL	2.1861 mL	4.3722 mL
	10 mM		0.2186 mL	1.0930 mL	2.1861 mL

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

BIOLOGICAL ACTIVITY

Description

Folitixorin (5,10-methylenetetrahydrofolate) is a cofactor and an analog of leucovorin. Folitixorin is a promising agent for modulation of 5-FU cytotoxicity in adjuvant cancer research^{[1][2]}.

In Vitro

5,10-methylenetetrahydrofolate reductase (MTHFR) catalyzes the conversion of 5,10-methylenetetrahydrofolate into 5-methyltetrahydrofolate, which is the major circulating form of folate^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

A colon adenocarcinoma cell suspension is inoculated intrahepatically in a rodent experimental model. Intravenous 5-FU (30 mg/kg) in combination with Folitixorin (15 mg/kg or 30 mg/kg) is administered after 1, 2, 3, 4 and 7 days. 5-FU in combination with Folitixorin (regardless of folate-dose) eliminates tumor take^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

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- bioRxiv. 2023 Jun 1.

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REFERENCES

- [1]. Costantini CL, et al. Resection of hepatic metastasis after 5-fluorouracil and cofactor for colon cancer. Hepatogastroenterology. 2009;56(91-92):645-649.
- [2]. Carlsson G, et al. 5-fluorouracil (5-FU) and 5,10-methylene tetrahydrofolate (5,10-CH₂FH₄) as adjuvant therapy in an experimental rodent colon carcinoma model. Anticancer Res. 1997;17(5A):3671-3674.
- [3]. Botto LD, et al. 5,10-Methylenetetrahydrofolate reductase gene variants and congenital anomalies: a HuGE review. Am J Epidemiol. 2000;151(9):862-877.
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Caution: Product has not been fully validated for medical applications. For research use only.

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