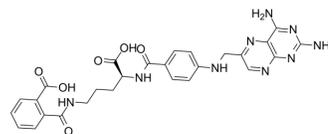


Talotrexin

Cat. No.:	HY-10824
CAS No.:	113857-87-7
Molecular Formula:	C ₂₇ H ₂₇ N ₉ O ₆
Molecular Weight:	573.56
Target:	Antifolate; Dihydrofolate reductase (DHFR)
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Talotrexin (PT523), an analog of Aminopterin (HY-14518), is a nonpolyglutamatable classic antifolate. Talotrexin is a RFC (reduced folate carrier) specific inhibitor and selectively inhibits RFC transport. Talotrexin shows antitumor activity by targeting DHFR to inhibit tumor growth ^{[1][2]} .
In Vitro	Talotrexin shows no significant PCFT or FRα inhibitory activity ^[1] . Talotrexin (1-1000 nM) inhibits proliferation of R1-11/Tet-on-RFC HeLa cells ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Talotrexin (0-35 mg/kg, IV injection, once weekly for 4 weeks) alone or combined with Paclitaxel (HY-B0015, 7.5 mg/kg) inhibits A549 tumor growth in mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	NSCLC xenografts in athymic female nude mice (6-8 weeks) ^[2]
Dosage:	15, 25, and 35 mg/kg, combined with Paclitaxel (HY-B0015, 7.5 mg/kg)
Administration:	IV injection, once weekly for 4 weeks
Result:	Inhibited A549 tumor growth.

REFERENCES

- [1]. O'Connor C, et al. Folate transporter dynamics and therapy with classic and tumor-targeted antifolates. *Sci Rep.* 2021 Mar 18;11(1):6389.
- [2]. Choy G S, et al. Combination talotrexin (PT-523) with paclitaxel in A549 non-small cell lung cancer (NSCLC) athymic nude mice xenografts[J]. *Cancer Research*, 2007, 67(1_Annual_Meeting).

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

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