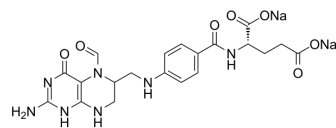


Folinic acid disodium

Cat. No.:	HY-17556A
CAS No.:	163254-40-8
Molecular Formula:	C ₂₀ H ₂₁ N ₇ Na ₂ O ₇
Molecular Weight:	517.4
Target:	Endogenous Metabolite; Antifolate
Pathway:	Metabolic Enzyme/Protease; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Folinic acid (Leucovorin) disodium is a biological folic acid and is a form of vitamin B9. Folinic acid disodium is generally administered along with Methotrexate (MTX) (HY-14519) as a rescue agent to decrease MTX-induced toxicity. Folinic acid disodium and Sflurouracil adjuvant chemotherapy shows effective in colon carcinoma ^{[1][2][3]} .								
IC₅₀ & Target	Human Endogenous Metabolite								
In Vitro	Folinic acid disodium (5, 50 µg/ml; 40 h) significantly reduces % micronucleated binucleated cells (MNBN) (40%-68%) and % aberrant cells (Abs) (36%-77%) in V79 cells that were treated with MTX at five different concentrations 5-100 mg/ml for 6 h ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	Folinic acid disodium (7.0 mg/kg; intraperitoneal injection; every second day; for 3 weeks; Balb/c young growing male mice) treatment following Methotrexate (MTX) administration appears to reverse this growth inhibition (Chronic administration of MTX induces suppression of skeletal growth in mice) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1"> <tr> <td>Animal Model:</td> <td>24 Balb/c young growing male mice aged 3 weeks (11.88 ± 0.25 g)^[2]</td> </tr> <tr> <td>Dosage:</td> <td>7.0 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; every second day; for 3 weeks</td> </tr> <tr> <td>Result:</td> <td>Following MTX administration appears to reverse this growth inhibition.</td> </tr> </table>	Animal Model:	24 Balb/c young growing male mice aged 3 weeks (11.88 ± 0.25 g) ^[2]	Dosage:	7.0 mg/kg	Administration:	Intraperitoneal injection; every second day; for 3 weeks	Result:	Following MTX administration appears to reverse this growth inhibition.
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CUSTOMER VALIDATION

- JAMA Oncol. 2022 Jan 1;8(1):e215445.
- NPJ Precis Oncol. 2023 Dec 8;7(1):128.
- Mol Oncol. 2020 Nov;14(11):2894-2919.
- Appl Microbiol Biotechnol. 2024 Dec;108(1):1-15.

-
- Virology. 2023 Jun 21.

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REFERENCES

- [1]. Keshava, C., et al., Inhibition of methotrexate-induced chromosomal damage by folic acid in V79 cells. *Mutat Res*, 1998. 397(2): p. 221-8.
- [2]. Iqbal MP, et al. Effect of methotrexate and folic acid on skeletal growth in mice. *Acta Paediatr*. 2003 Dec;92(12):1438-44.
- [3]. Francini G, et al. Folic acid and 5-fluorouracil as adjuvant chemotherapy in colon cancer. *Gastroenterology*. 1994 Apr;106(4):899-906.
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Caution: Product has not been fully validated for medical applications. For research use only.

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