

Data Sheet (Cat.No.T20339)

7-Hydroxymethotrexate

Chemical Properties

CAS No.: 5939-37-7

Formula: C20H22N8O6

Molecular Weight: 470.44
Appearance: N/A

Storage: 0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description 7-Hydroxymethotrexate is a phase I metabolite of MTX, which is converted by hepatic aldehyde oxidases. 2

Formulations containing methotrexate have been used in the treatment of cancer, autoimmune diseases, ectopic pregnancy, and for the induction of medical abortions. Elimination of 7-hydroxy MTX is associated with the multi-drug transporters Abcc2, Abcc3, and Abcg2 in transgenic mouse models.

Solubility Information

Solubility	DMSO: Soluble
	(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.126 mL	10.628 mL	21.257 mL
5 mM	0.425 mL	2.126 mL	4.251 mL
10 mM	0.213 mL	1.063 mL	2.126 mL
50 mM	0.043 mL	0.213 mL	0.425 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

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Reference

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- 2. Fabresse N, Devictor B, Pissier C, Chambost H, Lacarelle B, Michel G, Solas C. Plasma 7-Hydroxymethotrexate Levels Versus Methotrexate to Predict Delayed Elimination in Children Receiving High-Dose Methotrexate. Ther Drug Monit. 2018 Feb;40(1):76-83. doi: 10.1097/FTD.00000000000000445. PubMed PMID: 29120974.
- 3. Białk-Bielińska A, Mulkiewicz E, Stokowski M, Stolte S, Stepnowski P. Acute aquatic toxicity assessment of six anti-cancer drugs and one metabolite using biotest battery Biological effects and stability under test conditions. Chemosphere. 2017 Dec;189:689-698. doi: 10.1016/j.chemosphere.2017.08.174. Epub 2017 Sep 21. PubMed PMID: 28968575.
- 4. Patel H, Giri P, Ghoghari A, Delvadia P, Syed M, Srinivas NR. Review of the bioanalytical methods for the determination of methotrexate and its metabolites in in vitro, preclinical and clinical studies: Case studies and perspectives. Biomed Chromatogr. 2017 Jan;31(1). doi: 10.1002/bmc.3849. Epub 2016 Oct 17. Review. PubMed PMID: 27623319.

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