

Product Name: TH 9619 disodium salt

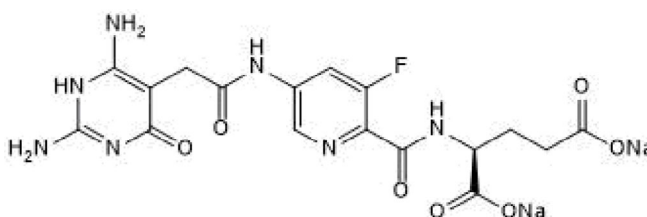
Catalog No.: 7719

Batch No.: 1

IUPAC Name: Disodium *N*-[[5-[[2-(2,4-Diamino-1,6-dihydro-6-oxo-5-pyrimidinyl)acetyl]amino]-3-fluoro-2-pyridinyl]carbonyl]-*L*-glutamate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₆FN₇NaO₇·1¼H₂O
Batch Molecular Weight: 526.85
Physical Appearance: Off White solid
Solubility: water to 20 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +16.5 (Concentration = 0.13, Solvent = 0.2M Sodium Carbonate)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	38.76	3.73	18.61
Found	38.18	3.53	18.21

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

TH 9619 disodium salt is a potent and selective methylenetetrahydrofolate dehydrogenase inhibitor (MTHFD2; IC₅₀ = 47 nM). It shows efficacy on HL-60 cell viability with EC₅₀ of 11nM. In vitro, It shows antiproliferative efficacy in acute myeloid leukemia (AML) cells and T-ALL Jurkat cells. In vivo, TH9619 disodium salt impairs cancer progression in a mouse disease model of AML.

Physical and Chemical Properties:

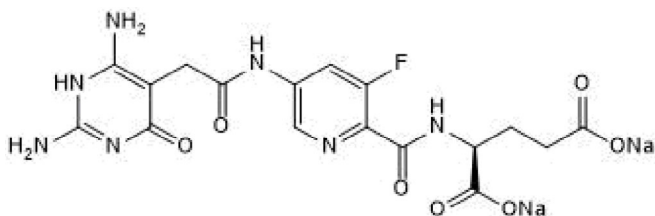
Batch Molecular Formula: C₁₇H₁₆FN₇NaO₇·1¾H₂O

Batch Molecular Weight: 526.85

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 20 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from Thomas Helleday's Foundation for Medical Research and One-Carbon Therapeutics

References:

Bonagas et al (2022) Pharmacological targeting of MTHFD2 suppresses acute myeloid leukemia by inducing thymidine depletion and replication stress. *Nat.Cancer* **3** 156. PMID: 35228749.

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