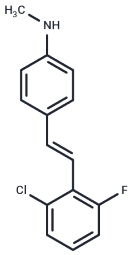
Data Sheet (Cat.No.T11285)

TargetMol

FIDAS-5

Chemical Properties



CAS No. : 1391934-98-7

Formula: C15H13ClFN

Molecular Weight: 261.72

Storage: Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	FIDAS-5 is an orally active methionine adenosyltransferase 2A (MAT2A) inhibitor with an IC50 of 2.1 μM. It can effectively compete with S-adenosylmethionine for MAT2A binding and has anticancer effects.
Targets(IC50)	Others,Methionine Adenosyltransferase (MAT)
In vitro	**METHODS**: FIDAS-5 (3 μM; 36 hours) was used to treat LS174T cells, and the levels of S-adenosylmethionine (SAM) and S-adenosylhomocysteine (SAH) were observed. **RESULTS** FIDAS-5 reduced S-adenosylmethionine (SAM) and S-adenosylhomocysteine (SAH) levels in LS174T cells. **METHODS**: FIDAS-5 (3 μM; 7 days) was used to treat LS174T cells, and the proliferation of LS174T cells was observed. **RESULTS** FIDAS-5 significantly inhibited the proliferation of LS174T cells. **METHODS**: FIDAS-5 (3 μM) treatment inhibited LS174T colorectal cancer cells, and the expression of c-Myc and cyclinD1 in LS174T colorectal cancer cells was observed by westernBlot. **RESULTS** FIDAS-5 inhibited the expression of c-Myc and cyclinD1 in LS174T colorectal cancer cells [1]. **METHODS**: OPM2 cells were transduced with siMAT2A or scrambled siRNA for 3 days. MAT2A-silenced and parental OPM2 cells were treated with different doses of FIDAS-5 (0.5, 1, 2 μM) to determine whether FIDAS-5 indeed impairs MM cell survival by inhibiting the enzymatic activity of MAT2A. **RESULTS** The antitumor effect of FIDAS-5 on MAT2A-silenced cells was impaired compared with cells transduced with scrambled siRNA. FIDAS-5 indeed inhibited MM cell survival in part by targeting MAT2A. [2]
In vivo	**METHODS**: Tumors were induced in athymic nude mice by subcutaneous injection of HT29 CRC cells. FIDAS-5 treatment (20 mg/kg) was administered orally via gavage. The oral efficacy of FIDAS-5 on HT29 tumor xenografts in nude mice was tested by measuring tumors twice weekly using digital calipers. **RESULTS** FIDAS-5 significantly inhibited xenograft tumor growth with minimal body weight differences. [1]

Solubility Information

Solubility	DMSO: 62.5 mg/mL (238.8 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (15.28 mM),Sonication is recommended. 10% DMSO+90% Saline: 6.25 mg/mL (23.88 mM),Suspension. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8209 mL	19.1044 mL	38.2088 mL
5 mM	0.7642 mL	3.8209 mL	7.6418 mL
10 mM	0.3821 mL	1.9104 mL	3.8209 mL
50 mM	0.0764 mL	0.3821 mL	0.7642 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sundberg TB,et al. Development of Chemical Probes for Investigation of Salt-Inducible Kinase Function in Vivo. ACS Chem Biol. 2016 Aug 19;11(8):2105-11.

He X C, Wang J, Shi M Y, et al.Hypoxia-induced one-carbon metabolic reprogramming in glioma stem-like cells.Life Medicine.2023: lnad048.

Wang Y, et al. S-adenosylmethionine biosynthesis is a targetable metabolic vulnerability in multiple myeloma. Haematologica. 2024 Jan 1;109(1):256-271.