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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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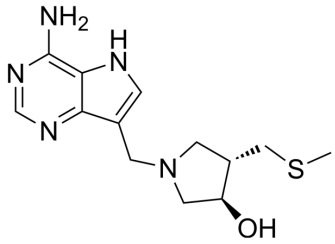
MT-DADMe-ImmA

Cat. No.:	HY-101496		
CAS No.:	653592-04-2		
Molecular Formula:	$C_{13}H_{19}N_5OS$		
Molecular Weight:	293.39		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (340.84 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.4084 mL	17.0422 mL	34.0843 mL
5 mM	0.6817 mL	3.4084 mL	6.8169 mL
10 mM	0.3408 mL	1.7042 mL	3.4084 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MT-DADMe-ImmA is an inhibitor of human 5'-methylthioadenosine phosphorylase (MTAP) with a K_i of 90 pM.

IC_{50} & Target

Ki: 90 pM (MTAP)[1]

In Vitro

Treatment of cultured cells with MT-DADMe-ImmA and MTA inhibit MTAP, increase cellular MTA concentrations, decrease polyamines, and induce apoptosis in FaDu and Cal27, two head and neck squamous cell carcinoma cell lines. The same treatment does not induce apoptosis in normal human fibroblast cell lines (CRL2522 and GM02037) or in MCF7, a breast

	cancer cell line with an MTAP gene deletion. MT-DADMe-ImmA alone does not induce apoptosis in any cell line, implicating MTA as the active agent[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The $t_{1/2}$ for onset of inhibition is 50 min with complete inhibition by 250 min. MTAP activity slowly returns, giving a biological half-life for the action of oral MT-DADMe-ImmA of 6.3 days. The time-dependent growth of FaDu tumors in immunodeficient mice is suppressed by oral or intraperitoneal treatment with MT-DADMe-ImmA[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [2]	Cell viability is evaluated using the Alamar Blue assay. Cells are seeded onto 96-well plates at a density of 104 cells/well and incubated with increasing concentrations of MT-DADMe-ImmA (100 pM to 100 μM) for 4 days at fixed MTA concentrations (0, 5, 10, and 20 μM). IC_{50} is determined with the assay data[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Administration [1]	Mice: Tumors were established in mice for 5 days prior to oral or intraperitoneal treatments with MT-DADMe-ImmA. Mice are treated with oral dose of 21 mg/kg or an intraperitoneal dose of 5 mg/kg/day MT-DADMe-ImmA[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cancer Res. 2021 Oct 1;81(19):4964-4980.
- Technische Universität München. 2023 Sep 21.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Evans GB, et al. Second generation transition state analogue inhibitors of human 5'-methylthioadenosine phosphorylase. J Med Chem. 2005 Jul 14;48(14):4679-89.

[2]. Basu I, et al. A transition state analogue of 5'-methylthioadenosine phosphorylase induces apoptosis in head and neck cancers. J Biol Chem. 2007 Jul 20;282(29):21477-86.

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