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产品名称：MT-DADMe-ImmA
产品别名：MTDIA; Methylthio-DADMe-Immucillin A

生物活性：

Description	MT-DADMe-ImmA is an inhibitor of human 5'-methylthioadenosine phosphorylase (MTAP) with a Ki 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].
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].

Solvent&Solubility

In Vitro:

DMSO : ≥ 33.33 mg/mL (113.60 mM)

* "≥" means soluble, but saturation unknown.

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

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

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.

实验参考：

Cell Assay	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). IC50 is determined with the assay data[2].
	Mice: Tumors were established in mice for 5 days prior to oral or intraperitoneal treatments with

Animal Administration	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].
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.