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产品名称：IB-MECA
产品别名：Piclidenoson；CF-101

生物活性：

Description

Piclidenoson (IB-MECA; CF-101) is an agonist of the adenosine A3 receptor with EC_{50} values of 0.11 μM. IC50 value: 0.11 μM (EC50) [3] Target: adenosine A3 receptor in vitro: Piclidenoson has been shown to play important roles in cell proliferation and apoptosis in a variety of cancer cell lines. The Piclidenoson was capable of decreasing intracellular cyclic adenosine monophosphate (cAMP) that was the reason for the presence of functional A3 adenosine receptor on the cell lines. Piclidenoson significantly reduced cell viability in a dose-dependent manner. Piclidenoson, an A3AR agonist, inhibits the growth of different cancer cell types like melanoma, colon, breast, leukemia, and prostate Piclidenoson was able to inhibit forskolin-stimulated cAMP levels with an EC50 value of 0.82 μM in OVCAR-3 cells. Piclidenoson was able to inhibit forskolin-stimulated cAMP levels with an EC50 value of 1.2 μM in Caov-4 cells. in vivo: Administrations of single intraperitoneal doses of either Piclidenoson 0.5 h post-irradiation resulted in statistically significant increases of MST in comparison with the control irradiated mice.[2]

Solvent&Solubility

In Vitro:

DMSO : ≥ 45 mg/mL (88.19 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9597 mL	9.7983 mL	19.5967 mL
	5 mM	0.3919 mL	1.9597 mL	3.9193 mL
	10 mM	0.1960 mL	0.9798 mL	1.9597 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。

In Vivo:

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline

Solubility: ≥ 2.5 mg/mL (4.90 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (4.90 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。

2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline)

Solubility: ≥ 2.5 mg/mL (4.90 mM); Clear solution

	此方案可获得 ≥ 2.5 mg/mL (4.90 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。 3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (4.90 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (4.90 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Hofer M, et al. Agonist of the adenosine A3 receptor, IB-MECA, and inhibitor of cyclooxygenase-2, meloxicam, given alone or in a combination early after total body irradiation enhance survival of γ-irradiated mice. Radiat Environ Biophys. 2014 Mar;53(1):211-215. [2]. Abedi H, et al. Mitochondrial and caspase pathways are involved in the induction of apoptosis by IB-MECA in ovarian cancer cell lines. Tumour Biol. 2014 Nov;35(11):11027-11039. [3]. Shin Y, et al. Activation of Phosphoinositide Breakdown and Elevation of Intracellular Calcium in a Rat RBL-2H3 Mast Cell Line by Adenosine Analogs: Involvement of A(3)-Adenosine Receptors? Drug Dev Res. 1996 Sep 1;39(1):36-46.