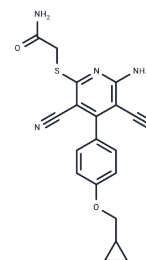


BAY 60-6583

Chemical Properties

CAS No. : 910487-58-0
 Formula: C₁₉H₁₇N₅O₂S
 Molecular Weight: 379.44
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	BAY 60-6583 is a potent, high-affinity adenosine A2B receptor agonist (EC ₅₀ = 3 nM) with affinity for A2B receptors that exceeds that for A1, A2A, and A3 receptors. BAY 60-6583 is cardioprotective in a model of myocardial ischemia. The K _i values for BAY 60-6583 binding to mouse, rabbit, and dog A2BAR were 750 nM, 340 nM, and 330 nM, respectively. The K _i values of BAY 60-6583 binding to A2BAR in mice, rabbits and dogs were 750 nM, 340 nM and 330 nM respectively.
Targets(IC50)	Adenosine Receptor
In vitro	BAY 60-6583 (0-10 μM) exhibits the maximum agonist effect of BAY 60-6583 in the absence of siRNA is 68 %.[3] BAY 60-6583 (5 μM; 24 h) induces a rise in cell accumulation within the G1 phase while concurrently reducing the G2/M phase in RAW264.7 preosteoclasts. Additionally, under the same conditions, BAY 60-6583 specifically impedes Akt activation triggered by M-CSF, with no discernible impact on M-CSF-induced ERK1/2 activation in RAW264.7 preosteoclasts.[4]
In vivo	BAY 60-6583 (100 mg/kg; intravenous injection; rabbit) administered just before reperfusion, diminishes the infarction area in ischemic rabbit hearts.[1] BAY 60-6583 (2 mg/kg; intravenous injection; mice) attenuates LPS-induced lung injury, pre-treatment with this compound can significantly decrease LPS-increased, IL-6 levels in WT mice.[2]

Solubility Information

Solubility	DMSO: 100 mg/mL (263.55 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: 10 mg/mL (26.35 mM), Solution. 10% DMSO+90% Saline: < 10 mg/mL (26.35 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6355 mL	13.1773 mL	26.3546 mL
5 mM	0.5271 mL	2.6355 mL	5.2709 mL
10 mM	0.2635 mL	1.3177 mL	2.6355 mL
50 mM	0.0527 mL	0.2635 mL	0.5271 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

- Aherne CM, et al. Epithelial-specific A2B adenosine receptor signaling protects the colonic epithelial barrier during acute colitis. *Mucosal Immunol.* 2015 Nov;8(6):1324-38.
- The different effects of four adenosine receptors in liver fibrosis
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- Gao ZG, et al. Probing biased/partial agonism at the G protein-coupled A(2B) adenosine receptor. *Biochem Pharmacol.* 2014 Aug 1;90(3):297-306.
- Yoon Taek Oh, et al. A2B Adenosine Receptor Stimulation Down-regulates M-CSF-mediated Osteoclast Proliferation. *Biomed Sci Letters* 2017;23:194-200
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- Morello S1, et al. Targeting the adenosine A2b receptor in the tumor microenvironment overcomes local immunosuppression by myeloid-derived suppressor cells. *Oncoimmunology.* 2014 Feb 14;3:e27989. eCollection 2014.

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