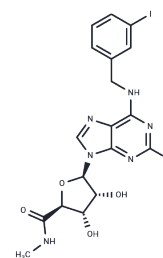


## Namodenoson

## Chemical Properties

CAS No. :	163042-96-4
Formula:	C <sub>18</sub> H <sub>18</sub> ClIN <sub>6</sub> O <sub>4</sub>
Molecular Weight:	544.73
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	Namodenoson (2-Cl-IB-MECA) is an adenosine A <sub>3</sub> receptor agonist.
Targets(IC <sub>50</sub> )	Adenosine Receptor
In vivo	The first infusion of Namodenoson resulted in a rapid fall of the blood pressure to a value which was about 50% of the pre-administration level. The hypotension was short-lasting. After approximately 15 min the blood pressure started to recover and rapidly returned to stable values, which were significantly lower than the blood pressure values in the control group. Administration of the second dose of Namodenoson, at 150 min after the first infusion, did not produce any hypotension at all. The slight increase in the mean arterial pressure during the second infusion was not specific for Namodenoson[1]
Animal Research	Rats were randomly assigned to two treatment groups of 6 animals, which received either two subsequent intravenous infusions of 200 µg/kg 2-chloro-N <sup>6</sup> -(3-iodobenzyl) adenosine-5'-N-methylcarboxamide (2-Cl-IB-MECA) during 15 min or two subsequent infusions of the vehicle during 15 min. 2-Cl-IB-MECA was dissolved in dimethylsulfoxide (DMSO) and diluted with a sodium chloride solution to a final 30% (v/v) DMSO solution (a total volume of 765 µl). Fresh solutions were prepared prior to each experiment. The effect measurements were started at least 45 min prior to the first drug infusion and lasted until 4.5 h after this infusion. Heart rate and blood pressure were recorded continuously and serial arterial blood samples were drawn for determination of plasma histamine concentrations. 2 h after the first administration the second dose of 2-Cl-IB-MECA (or vehicle) was administered[1].

## Solubility Information

Solubility	DMSO: 31 mg/mL (56.91 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: 2 mg/mL (3.67 mM), Sonication is recommended. <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

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	1mg	5mg	10mg
1 mM	1.8358 mL	9.1789 mL	18.3577 mL
5 mM	0.3672 mL	1.8358 mL	3.6715 mL
10 mM	0.1836 mL	0.9179 mL	1.8358 mL
50 mM	0.0367 mL	0.1836 mL	0.3672 mL

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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

Schaick E A V , Jacobson K A , Kim H O , et al. Hemodynamic effects and histamine release elicited by the selective adenosine A3 receptor agonist 2-Cl-IB-MECA in conscious rats[J]. European Journal of Pharmacology, 1996, 308(3): 0-314.

Cai H, Guo S, Xu Y, et al. Cryo-EM structures of adenosine receptor A3AR bound to selective agonists. Nature Communications. 2024, 15(1): 3252.

Yuan K , Bai G Y , Park W H , et al. Stimulation of ANP secretion by 2-Cl-IB-MECA through A3 receptor and CaMKII[J]. Peptides, 2008, 29(12):0-2224.

The different effects of four adenosine receptors in liver fibrosis

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