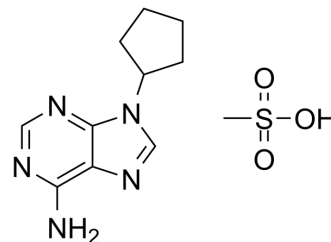


## 9-Cyclopentyladenine monomethanesulfonate

<b>Cat. No.:</b>	HY-116530
<b>CAS No.:</b>	189639-09-6
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>17</sub> N <sub>5</sub> O <sub>3</sub> S
<b>Molecular Weight:</b>	299.35
<b>Target:</b>	Adenylate Cyclase
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 41.67 mg/mL (139.20 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	3.3406 mL	16.7029 mL	33.4057 mL	
5 mM	0.6681 mL	3.3406 mL	6.6811 mL	
10 mM	0.3341 mL	1.6703 mL	3.3406 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

9-Cyclopentyladenine monomethylsulfonate (9-CP-Ade mesylate) is a stable non-competitive adenylate cyclase inhibitor with cell permeable properties<sup>[1][2]</sup>.

#### In Vitro

9-Cyclopentyladenine monomethanesulfonate (200 μM, 30 min) inhibits the activation of cAMP response element binding protein (CREB) and completely blocks neurogenesis in PC12 cells<sup>[1]</sup>.  
 9-Cyclopentyladenine monomethanesulfonate (100 μM, 30min) attenuates the effect of relaxin on mechanical activity and prevents relaxin-induced hyperpolarization thereby being involved in the regulation of relaxin on ileal smooth muscle activity in female CD1 Swiss mice<sup>[2]</sup>.  
 9-Cyclopentyladenine monomethanesulfonate (100 μM, 6 hours) promotes restoration of the keratinocyte permeability barrier by inhibiting the synthesis of cAMP in male hairless mice<sup>[3]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Ulrike Riese et al. Militarione A induces differentiation in PC12 cells via MAP and Akt kinase signal transduction pathways. FEBS Lett. 2004 Nov 19;577(3):455-9.

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[2]. Eglantina Idrizaj et al. Relaxin influences ileal muscular activity through a dual signaling pathway in mice. World J Gastroenterol. 2018 Feb 28;24(8):882-893.

[3]. Mitsuhiro Denda, et al. Association of cyclic adenosine monophosphate with permeability barrier homeostasis of murine skin. J Invest Dermatol. 2004 Jan;122(1):140-6.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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