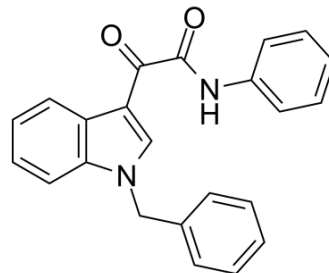


KI-7

Cat. No.:	HY-131032
CAS No.:	1489263-00-4
Molecular Formula:	C ₂₃ H ₁₈ N ₂ O ₂
Molecular Weight:	354.4
Target:	Adenosine Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	KI-7 is an A2B adenosine receptor positive allosteric modulator. KI-7 potentiates the cAMP accumulation induced by the non-selective A2B adenosine receptor agonist NECA (EC ₅₀ =445.8 nM). KI-7 also potentiates the cAMP accumulation induced by the selective A2B adenosine receptor agonist BAY 60-6583 as well as by adenosine with EC ₅₀ s of 2390 nM and 2550 nM, respectively ^{[1][2]} .
In Vitro	KI-7 (1 μM; 5-21 days; mesenchymal stem cells) induces a significant increase in mRNA expression of Runx2 and Osterix ^[1] . KI-7 (1 μM; 15-21 days) induced a significant increase in cell viability in both differentiation stages ^[1] . KI-7, as A2B adenosine receptor positive allosteric modulator in MSCs, demonstrating it is able to potentiate the effects of either adenosine and synthetic orthosteric A2B adenosine receptor agonists in mediating osteoblast differentiation in vitro. NECA, BAY 60-6583 and KI-7 induce a strong increase in IL-6 production. KI-7 is able to potentiate the effects of orthosteric agonists in both differentiation stages, even if the effect became significant only at 21 days ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Trincavelli ML, et al. Allosteric modulators of human A2B adenosine receptor. *Biochim Biophys Acta*. 2014;1840(3):1194-1203.

[2]. Trincavelli ML, et al. Osteoblast differentiation and survival: A role for A2B adenosine receptor allosteric modulators. *Biochim Biophys Acta*. 2014;1843(12):2957-2966.

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

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