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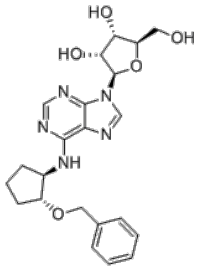
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	BnOCPA
Cat. No.	:	PC-49105
CAS No.	:	872693-38-4
Molecular Formula	:	$C_{22}H_{27}N_5O_5$
Molecular Weight	:	441.488
Target	:	Adenosine Receptor
Solubility	:	10 mM in DMSO



Biological Activity

BnOCPA is a potent and powerful analgesic and a highly selective and potent, full agonist at human **adenosine A1 receptors** (A1Rs) with pEC50 of 7.23 in a NanoBRET agonist binding assay.
BnOCPA displays 8000- and >150-fold greater efficacy at rat A1Rs (rA1Rs) than at rat A2ARs (rA2ARs) and A3Rs (rA3Rs), respectively.
BnOCPA exquisitely discriminates between native pre- and postsynaptic A1Rs in the intact mammalian CNS.
BnOCPA potently inhibited excitatory synaptic transmission in rat hippocampal slices with IC50 of 65 nM.
BnOCPA demonstrates unique Gα signalling in the selective activation of Gob, selectively induces canonical activation states at A1R:Gob, but non-productive metastable states at other Gαi/o subunits.
BnOCPA (IP; 10 μg/kg) or intravenously (IV; 10 or 25 μg/kg)) is a potent analgesic without causing sedation or motor impairment.

References

Mark J Wall, et al. ***Nat Commun.*** 2022 Jul 18;13(1):4150.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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