

Product Name	: 2,5-Dideoxyadenosine
Synonyms	: —
Cat No.	: M22179
CAS Number	: 6698-26-6
Molecular Formula	: C ₁₀ H ₁₃ N ₅ O ₂
Formula Weight	: 235.24
Chemical Name	: —
Description	<p>2',5'-Dideoxyadenosine is a potent and non-competitive adenylyl cyclase inhibitor via binding the P-site (IC₅₀: 3 μM). 2',5'-Dideoxyadenosine (20-150 mM), like adenosine, dependently and reversibly inhibits the positive inotropic and chronotropic effect of beta-adrenergic stimulation with isoproterenol (8-54 pmol) up to 70% and 50%, respectively [2]. 2',5'-Dideoxyadenosine (10 μM, 30 min) reduces cAMP production and blocks the phosphorylation of GluA1 at Ser845 induced by carbachol (CCh). 2',5'-Dideoxyadenosine (10 μM, 30 min) blocks CCh-induced increase of phosphorylation of Akt and attenuates CCh-induced phosphorylation of Ser2448 [3]. 2',5'-Dideoxyadenosine (0.1 mg/kg; i.p.; 15 min pre-treated) fully inhibits the natriuretic, diuretic and K⁺ and Cl⁻ sparing effect of FrEtOAc in rats.</p>
Pathway	: Others
Target	: Other Targets
Receptor	: Adenylyl cyclase (AC)
Solubility	: —
SMILES	: <chem>C1C@H]1O[C@H](C[C@@H]1O)n1cnc2c(N)ncnc12</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1. Bushfield M, et al. Tissue levels, source, and regulation of 3'-AMP: an intracellular inhibitor of adenylyl cyclases. Mol Pharmacol. 1990 Dec;38(6):848-53.