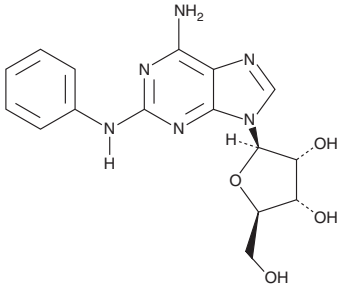
PRODUCT INFORMATION

2-Phenylaminoadenosine

Item No. 28734



CAS Registry No.:	53296-10-9
Synonym:	CV-1808
MF:	$C_{16}H_{18}N_6O_4$
FW:	358.4
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2-Phenylaminoadenosine is supplied as a solid. A stock solution may be made by dissolving the 2-phenylaminoadenosine in the solvent of choice, which should be purged with an inert gas. 2-Phenylaminoadenosine is slightly soluble in methanol (sonicated) and DMSO.

Description

2-Phenylaminoadenosine is an adenosine receptor agonist.[1] It binds to adenosine A_1 receptors in rat cortical membranes (IC_{50} = 910 nM) and A_2 receptors in rat striatal membranes (IC_{50} = 115 nM). 2-Phenylaminoadenosine increases coronary flow in a perfused working rat heart model *ex vivo* (EC_{25} = 110 nM). It decreases blood pressure in normotensive (ED_{25} = 28 µg/kg) and spontaneously hypertensive rats (SHR; ED_{30} = 5.32 µg/kg).[1,2] 2-Phenylaminoadenosine (500 nmol/kg) increases L-dihydroxyphenylalanine (L-DOPA; Item No. 13248) accumulation in rat striatum.[3] It also inhibits conditioned avoidance responding (CAR) to electric shock in rats (ED_{50} = 1.3 mg/kg).[4]

References

1. Hutchison, A.J., Webb, R.L., Oei, H.H., *et al.* CGS 21680C, an A_2 selective adenosine receptor agonist with preferential hypotensive activity. *J. Pharmacol. Exp. Ther.* **251(1)**, 47-55 (1989).
2. Abiru, T., Yamaguchi, T., Watanabe, Y., *et al.* The antihypertensive effect of 2-alkynyladenosines and their selective affinity for adenosine A_2 receptors. *Eur. J. Pharmacol.* **196(1)**, 69-76 (1991).
3. Choksi, N.Y., Hussain, A., and Booth, R.G. 2-Phenylaminoadenosine stimulates dopamine synthesis in rat forebrain in vitro and in vivo via adenosine A_2 receptors. *Brain Res.* **761(1)**, 151-155 (1997).
4. Martin, G.E., Rossi, D.J., and Jarvis, M.F. Adenosine agonists reduce conditioned avoidance responding in the rat. *Pharmacol. Biochem. Behav.* **45(4)**, 951-958 (1993).

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