

PRODUCT INFORMATION



Adenosine amine congener

Item No. 34394

CAS Registry No.: 96760-69-9

Formal Name: N-[4-[2-[[4-[2-[(2-aminoethyl)amino]-2-oxoethyl]phenyl]amino]-2-oxoethyl]phenyl]-adenosine

Synonym: ADAC

MF: $C_{28}H_{32}N_8O_6$

FW: 576.6

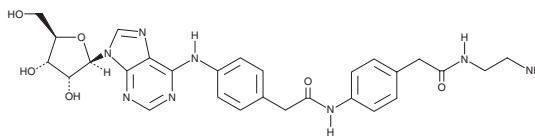
Purity: $\geq 98\%$

UV/Vis.: λ_{max} : 251, 304 nm

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

Adenosine amine congener (ADAC) is supplied as a solid. A stock solution may be made by dissolving the ADAC in the solvent of choice, which should be purged with an inert gas. ADAC is soluble in DMSO.

Description

ADAC is an adenosine A_1 receptor agonist.^{1,2} It selectively binds adenosine A_1 over A_{2A} and A_3 receptors (K_i s = 0.85, 210, and 281 nM, respectively, for the rat receptors).³ ADAC (75 $\mu\text{g/kg}$) increases survival and prevents neuronal damage in the hippocampal CA1 region in a gerbil model of cerebral ischemia induced by bilateral carotid artery occlusion.¹ It protects against auditory threshold shifts and inner and outer hair cell loss in rats following noise exposure at 110 dB when administered at a dose of 100 $\mu\text{g/kg}$.²

References

1. Von Lubitz, D.K.J.E., Lin, R.C.-S., Bischofberger, N., *et al.* Protection against ischemic damage by adenosine amine congener, a potent and selective adenosine A_1 receptor agonist. *Eur. J. Pharmacol.* **369**(3), 313-317 (1999).
2. Vljakovic, S.M., Lee, K.-H., Wong, A.C.Y., *et al.* Adenosine amine congener mitigates noise-induced cochlear injury. *Purinergic Signal.* **6**(2), 273-281 (2010).
3. Karl, M.O., Fleischhauer, J.C., Stamer, W.D., *et al.* Differential P1-purinergic modulation of human Schlemm's canal inner-wall cells. *Am. J. Physiol. Cell Physiol.* **288**(4), C784-C794 (2005).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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