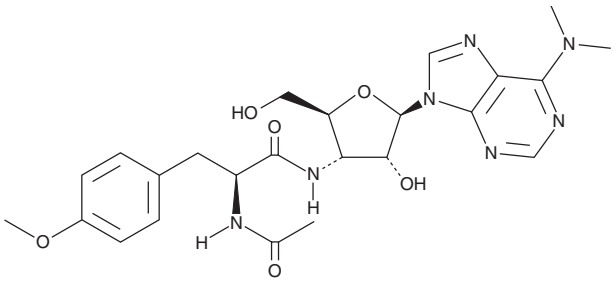
PRODUCT INFORMATION

N-Acetylpuromycin

Item No. 25335

CAS Registry No.:	22852-13-7
Formal Name:	3'-[[(2S)-2-(acetylamino)-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyl-adenosine
MF:	$C_{24}H_{31}N_7O_6$
FW:	513.6
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

N-Acetylpuromycin is supplied as a solid. A stock solution may be made by dissolving the N-acetylpuromycin in the solvent of choice. N-Acetylpuromycin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of N-acetylpuromycin in these solvents is approximately 70 and 55 mg/ml, respectively.

Description

N-Acetylpuromycin is a non-ribotoxic form of the antibiotic puromycin (Item No. 13884) that is formed in puromycin-resistant *S. alboniger* that endogenously express puromycin-acetyltransferase.[1] In AD293(Pr) cells that express puromycin-N-acetyltransferase, the enzyme responsible for the biosynthesis of N-acetylpuromycin, puromycin application induces downregulation of the negative regulators of TGF-β signalling SnoN and Ski without activating MAPK or inhibition of protein synthesis.[2]

References

1. Sugiyama, M., Paik, S.-Y., and Nomi, R. Mechanism of self-protection in a puromycin-producing micro-organism. *J. Gen. Microbiol.* **131(8)**, 1999-2005 (1985).
2. Hernández-Damián, J., Tecalco-Cruz, A.C., Ríos-López, D.G., *et al.* Downregulation of SnoN oncoprotein induced by antibiotics anisomycin and puromycin positively regulates transforming growth factor-β signals. *Biochim. Biophys. Acta* **1830(11)**, 5049-5058 (2013).

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