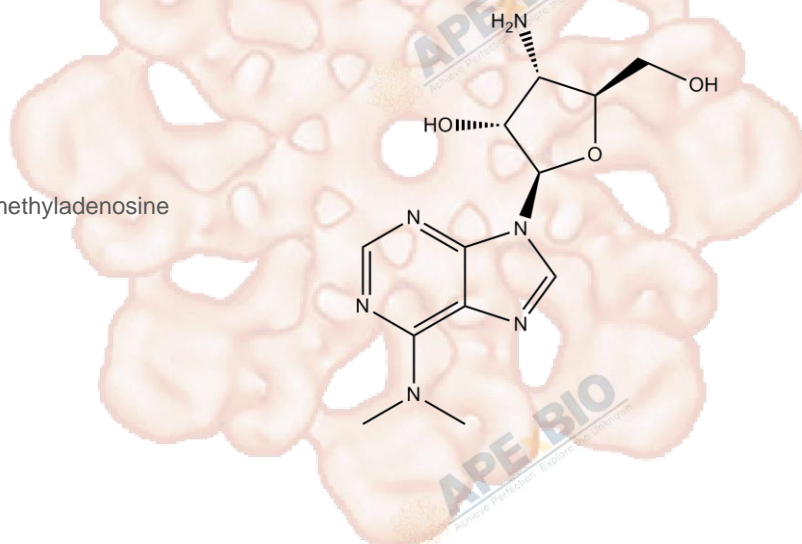


Puromycin aminonucleoside

Cat. No.:	A3740
CAS No.:	58-60-6
Formula:	C ₁₂ H ₁₈ N ₆ O ₃
M.Wt:	294.31
Synonyms:	3'-Amino-3'-deoxy-N ₆ ,N ₆ -dimethyladenosine
Target:	Others
Pathway:	Others
Storage:	Store at -20°C



Solvent & Solubility

≥14.45 mg/mL in DMSO; ≥29.4 mg/mL in EtOH with gentle warming; ≥29.5 mg/mL in H₂O with gentle warming

In Vitro

Preparing Stock Solutions	Solvent Concentration	Mass		
		1mg	5mg	10mg
	1 mM	3.3978 mL	16.9889 mL	33.9778 mL
	5 mM	0.6796 mL	3.3978 mL	6.7956 mL
	10 mM	0.3398 mL	1.6989 mL	3.3978 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Aminonucleoside portion of the antibiotic puromycin

IC₅₀ & Target

Cell Viability Assay

In Vitro

Cell Line:	Madin-Darby canine kidney (MDCK) cells
Preparation method:	The solubility of this compound in DMSO is >14.5mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored

		below -20°C for several months.
	Reacting conditions:	48 h
	Applications:	In vector- and PMAT-transfected MDCK cells, Puromycin aminonucleoside (PAN) exhibited cell cytotoxicity with the IC50 values of 48.9 ± 2.8 and 122.1 ± 14.5 μ M, respectively. PAN (250 μ M) was toxic to both PMAT-expressing and vector-transfected cells. Puromycin aminonucleoside uptake in PMAT-expressing cells was four fold higher at pH 6.6 than that at pH 7.4.
In Vivo	Animal experiment	
	Animal models:	Nephrosis rats
	Dosage form:	Intravenous injection, 60 mg/kg, 150 mg/kg
	Applications:	In nephrosis rats, the number of podocytes per glomerulus was 90.7 on Day 4 in PAN (8 mg/100 g, i.v.) treated group. The amount of nephrin per glomerulus in PAN-treated nephrosis rats reduced to 0.46 ± 0.06 fmol and 0.35 ± 0.04 fmol on Day 4 and Day 7. The nephrin amount per podocyte was significantly decreased association with the development of proteinuria in Puromycin aminonucleoside nephrosis rats. Rats given PAN (100 mg/kg, s.c.) gained less weight and their serum creatinine levels were higher than the control rats, indicating Puromycin aminonucleoside impaired renal function.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Meng L, Wang X, et al. "BAF53a is a potential prognostic biomarker and promotes invasion and epithelial-mesenchymal transition of glioma cells." *Oncol Rep.* 2017 Dec;38(6):3327-3334.PMID:29039584

See more customer validations on www.apexbt.com.

References

- [1]. Xia L, Zhou M, Kalhorn T F, et al. Podocyte-specific expression of organic cation transporter PMAT: implication in puromycin aminonucleoside nephrotoxicity. *American Journal of Physiology-Renal Physiology*, 2009, 296(6): F1307-F1313.
- [2]. Kawakami, Hirota, et al. Dynamics of absolute amount of nephrin in a single podocyte in puromycin aminonucleoside nephrosis rats calculated by quantitative glomerular proteomics approach with selected reaction monitoring mode. *Nephrology Dialysis Transplantation* 27.4 (2011): 1324-1330.
- [3]. Nosaka, Kazuo, et al. An adenosine deaminase inhibitor prevents puromycin aminonucleoside nephrotoxicity. *Free Radical Biology and Medicine* 22.4 (1997): 597-605.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

