

Product Name:	Puromycin
Product Number:	P097
CAS Number:	53-79-2
Molecular Formula:	C ₂₂ H ₂₉ N ₇ O ₅
Molecular Weight:	471.5
Appearance:	White powder
Storage Conditions:	-20°C
Description:	Puromycin is a nucleoside antibiotic isolated from <i>Streptomyces alboniger</i> in the 1950s as an anti-trypanosomal agent with antibiotic activity. Puromycin is used in cell biology to select mammalian cell lines that have been transformed by vectors that express puromycin-N-acetyl-transferase.

TOKU-E offers four forms of puromycin:

- Puromycin (P097)
- Puromycin Dihydrochloride (P001)
- Puromycin Aminonucleoside (P041)
- Puromycin Dihydrochloride Solution (P025)

Puromycin is soluble in ethanol, methanol, DMF and DMSO and has moderate solubility in water. Puromycin aminonucleoside and puromycin DiHCl are soluble in aqueous solution. Puromycin DiHCl solution is prepared at 10 mg/mL in 20 mM HEPES buffer.

Mechanism of Action: Puromycin is non-selective, inhibiting RNA by blocking ribosomal translation.

References: Achromycin, the structure of the antibiotic puromycin. Waller C.W.J., Am. Chem. Soc. 1953, 75, 2025.

Biosynthesis of puromycin by *Streptomyces alboniger*. Characterization of puromycin N-acetyltransferase. Vara J. et al. , Biochemistry 1985, 24, 8074.

Unexpected cytokinetic effects induced by puromycin include a G2- arrest, a metaphase-mitotic-arrest, and apoptosis. Davidoff A.N. & Mendelow B.V., Leuk. Res. 1992, 16, 1077.

Puromycin inhibition of protein synthesis: incorporation of puromycin into peptide chains. Nathans D., Proc. Nat. Acad. Sci. 1964, 51, 585.

Effect of puromycin analogues and other agents on peptidyl-puromycin synthesis on polyribosomes. Petska S. et al. , Antimicrobial Agents Chemother. 1973, 4, 37.

If you need any help, contact us: info@toku-e.com. Find more information on: www.toku-e.com/