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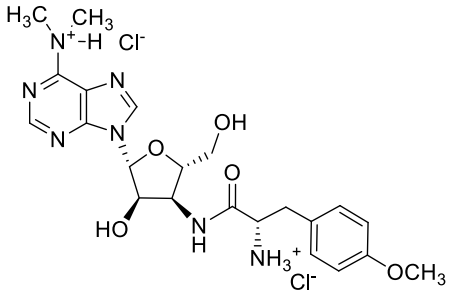
PRODUCT DATA SHEET

Puromycin dihydrochloride

Code No.: **BIA-P1221**

Pack sizes: **25 mg, 100 mg**



Synonyms : Stylomycin dihydrochloride, CL 13900 dihydrochloride, CL16536, NSC 3055, P638 dihydrochloride.

Specifications

CAS #	:	**58-58-2**
Molecular Formula	:	**$C_{22}H_{31}Cl_2N_7O_5$**
Molecular Weight	:	**544.4**
Source	:	***Streptomyces alboniger***
Appearance	:	**White powder**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Good water solubility.**

Application Notes

Puromycin dihydrochloride is a salt of puromycin, a nucleoside antibiotic isolated from Streptomyces alboniger in the 1950s as an anti-trypansomal agent with antibiotic activity. While the salt shares the same pharmacological properties as puromycin free base, its greater water solubility offers advantages in some in vitro applications. Physicochemical properties and chromatographic behaviour will depend on whether the pH is buffered. In non-pH controlled systems, the free base and salt may behave differently.

References

1. Achromycin, the structure of the antibiotic puromycin. Waller C.W.J., Am. Chem. Soc. 1953, 75, 2025.
2. Biosynthesis of puromycin by Streptomyces alboniger. Characterization of puromycin N-acetyltransferase. Vara J. et al., Biochemistry 1985, 24, 8074.
3. 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.
4. Puromycin inhibition of protein synthesis: incorporation of puromycin into peptide chains. Nathans D., Proc. Nat. Acad. Sci. 1964, 51, 585.
5. Effect of puromycin analogues and other agents on peptidyl-puromycin synthesis on polyribosomes. Petska S. et al., Antimicrobial Agents Chemother. 1973, 4, 37.

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