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ProductInformation

3'-Amino-3'-deoxy-N^6,N^6-dimethyladenosine

Product Number **P 7130**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_{12}H_{18}N_6O_3$
Molecular Weight: 294.3
CAS Number: 58-60-6
Melting Point: 215-216 °C[1]
λ_{max}: 269 nm (0.1 M HCl)[1]
Extinction Coefficient: E^{mM} = 18.6 (0.1 mM HCl)[1]
Synonyms: puromycin aminonucleoside; 3'-amino-3'-deoxy-N,N-dimethyladenosine

3'-Amino-3'-deoxy-N^6,N^6-dimethyladenosine is the aminonucleoside portion of the antibiotic puromycin.[1] It has been used in nephrology research, such as studies of focal and segmental glomerulosclerosis and in the induction of nephrosis in rats.[2-4] The excretion of sodium and NO_x metabolites in rats with puromycin aminonucleoside-induced nephrotic syndrome has been studied.[5] The generation of reactive oxygen species in rats in the acute phase of puromycin aminonucleoside induced nephrosis has been investigated.[6]

Puromycin aminonucleoside has been used to probe endothelial glycosaminoglycan synthesis in cultured glomerular endothelial cells and their relation to cell permeability.[7] The role of the neuron-specific ubiquitin C-terminal hydrolase protein gene product 9.5 (PGP 9.5) in rat kidney nephrogenesis has been studied in the puromycin aminonucleoside nephrosis model of rat glomerular disease.[8]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (50 mg/ml), with heat as needed, yielding a clear, colorless to faint yellow solution.

References

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3. Fogo, A. B., Animal models of FSGS: lessons for pathogenesis and treatment. Semin. Nephrol., **23(2)**, 161-171 (2003).
4. Mattoo, T. K., and Kovacevic, L., Effect of grape seed extract on puromycin-aminonucleoside-induced nephrosis in rats. Pediatr. Nephrol., **18(9)**, 872-877 (2003).
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6. Gwinner, W., et al., Reactive oxygen species and antioxidant defense in puromycin aminonucleoside glomerulopathy. J. Am. Soc. Nephrol., **8(11)**, 1722-1731 (1997).
7. Sorensson, J., et al., Synthesis of sulfated proteoglycans by bovine glomerular endothelial cells in culture. Am. J. Physiol. Renal Physiol., **284(2)**, F373-380 (2003).
8. Shirato, I., et al., Protein gene product 9.5 is selectively localized in parietal epithelial cells of Bowman's capsule in the rat kidney. J. Am. Soc. Nephrol., **11(12)**, 2381-2386 (2000).

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