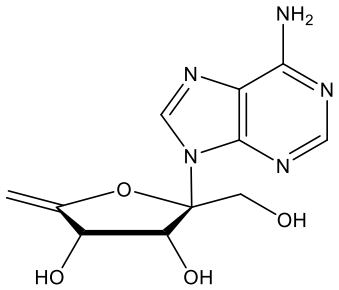
Catalog # 10-5149

Decoyinine

CAS# 2004-04-8

4',5'-Didehydro-1'-C-(hydroxymethyl)-adenosine; Angustmycin A; U-7984

Lot # S107121



Decoyinine is a non-competitive and reversible inhibitor of GMP synthase (GMPS, IC_{50}=17.3 μM).[1] GMPS was shown to be a positive regulator of invasiveness in melanoma cells and decoyinine reduced invasion of melanoma cells by 30%.[2] Decoyinine reduces intracellular levels of GMP, GDP and GTP. Numerous studies of decoyinine in bacteria have been performed showing that guanylates play key roles in bacterial growth, cell wall biosynthesis, sporulation, and pathogenicity.[3-5]

1) Sundaram *et al*. (1984), *Biochemical characterization of human GMP synthetase*; J. Neurochem. **42** 577
2) Ribbens *et al*. (2014); *Pharmacological targeting of guanosine monophosphate synthase suppresses melanoma cell invasion and tumorigenicity*, Mol. Genet. Metab., **111** 172
3) Lewandowski *et al*. (2022), *Expression of kinA and kinB of Bacillus subtilis, necessary for sporulation initiation, is under positive stringent transcription control*; JCI Insight **7** e156301
4) Granzotto *et al*. (2019), *Effect of decoyinine on the regulation of alpha-amylase synthesis in Bacillus subtilis*; Aging (Albany NY) **11** 6336
5) Granzotto *et al*. (2019), *Effect of decoyinine on peptidoglycan synthesis and turnover in Bacillus subtilis*; Aging (Albany NY) **11** 6336

PHYSICAL DATA

Molecular Weight:	279.26
Molecular Formula:	$C_{11}H_{13}N_5O_4$
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (50 mg/ml); Water (35 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or water may be stored at -20°C for up to 1 month.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

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