Product Data Sheet

Product Name: 5'-chloro-5'-Deoxyadenosine (hydrate)
Cat. No.: GC18826

Chemical Properties

Cas. No.	698999-09-6		
Chemical Name	5'-chloro-5'-deoxy-adenosine, hydrate		
SMILES	O[C@H]1[C@@H](O)[C@H](N2C=NC3=C(N)N=CN=C32)O[C@@H]1CCl.O		
Formula	$C_{10}H_{12}ClN_5O_3.XH_2O$	M.Wt	285.7
Solubility	DMF: 30 mg/ml,DMF:PBS (pH 7.2)(1:3): 0.25 mg/ml,DMSO: 25 mg/ml,Ethanol: 0.5 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

5'-chloro-5'-Deoxyadenosine (hydrate) is a nucleoside analog used as a substrate in polyketide biosynthesis. S-(5'-adenosyl)-L-methionine can be converted to 5'-chloro-5'-deoxyadenosine in a reaction catalyzed by a SAM-dependent chlorinase. Through a 7-step route, 5'-chloro-5'-deoxyadenosine can be converted to chloroethylmalonyl-CoA, which has been shown to be involved in the biosynthesis of the anticancer agent salinosporamide A in the marine bacterium S. tropica.

References:
[1]1. Eustáquio, A.S., McGlinchey, R.P., Liu, Y., et al. Biosynthesis of the salinosporamide A polyketide synthase substrate chloroethylmalonyl-coenzyme A from S-adenosyl-L-methionine Proc. Natl. Acad. Sci. USA 106(30), 12295-12300 (2009).

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