Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Tubercidin

Catalog No: tcsc5578

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
69-33-0

Formula:
$C_{11}H_{14}N_4O_4$

Pathway:
Anti-infection

Target:
Bacterial

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (112.68 mM)

Alternative Names:
7-Deazaadenosine; Sparsomycin A

Observed Molecular Weight:
266.25

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Product Description

Tubercidin (7-Deazaadenosine) is an adenosine analog, is an antibiotic obtained from Streptomyces tubercidicus.

Target: Antibacterial

Tubercidin inhibits the growth of Streptococcus faecalis by 50 % at a concentration of 20 nM. Tubercidin is not subject to cleavage by adenosine phosphorylase or to deamination by adenosine deaminase. The antibiotic served as a substrate for numerous enzymes involved in the anabolism of adenosine, as demonstrated by its incorporation into RNA and DNA, and by the formation of nicotinamide-deaza-adenine dinucleotide. Tubercidin proves to be a weak inhibitor of adenosine phosphorylase, and interfered with the phosphorylation of adenosine and AMP. The inhibition of the growth of S. faecalis by Tubercidin is prevented by purine and pyrimidine nucleosides, ribose 5-phosphate, pyruvate, and certain amino acids. In the presence of Tubercidin, growing cultures of the test organism used pyruvate instead of glucose, whereas in the absence of the antibiotic glucose served as the main source of energy. It is suggested, therefore, that the impairment of growth is due primarily to the interference of Tubercidin with the utilization of glucose.