

产品名称: **Tubercidin Trifluoroacetate**
 产品别名: **Tubercidin** ; 杀结核菌素; **7-Deazaadenosine**

生物活性:

Description	Tubercidin (7-Deazaadenosine) is an antibiotic obtained from Streptomyces tubercidicus, it inhibits the growth of Streptococcus faecalis (8043) by IC50 of 0.02 μM[1]. Tubercidin (7-Deazaadenosine) inhibits polymerases by incorporating DNA or RNA, thereby inhibiting DNA replication, RNA and protein synthesis[2]. Tubercidin (7-Deazaadenosine) is a weak inhibitor of adenosine phosphorylase, and interferes with the phosphorylation of adenosine and AMP[1].				
In Vitro	Tubercidin (7-Deazaadenosine) (0-10 nM; 14 days) has a dose-dependent inhibitory effect on myeloid and erythroid human bone marrow progenitor cells, and the IC50s of tubercidin were 3.4 nM and 3.7 nM for CFU-GM and BFU-E, respectively[2].				
	Cell Cytotoxicity Assay[2]				
	Cell Line:	Human bone marrow progenitor cells			
	Concentration:	0-10 nM			
	Incubation Time:	14 days			
	Result:	Had a dose-dependent inhibitory effect for CFU-GM and BFU-E.			
In Vivo	Tubercidin (7-Deazaadenosine) (intraperitoneal injection; 5 mg/kg; 10 days) in cooperation with NBMPR-P protects the mice from the lethality of tubercidin and allowed the repetition of the regimen for a second time with 100% survival[2].				
	Animal Model:	Female CD1 mice[2]			
	Dosage:	5 mg/kg			
	Administration:	Intraperitoneal injection; 5 mg/kg; 10 days			
	Result:	Protected the mice from the lethality of tubercidin.			
Solvent&Solubility	In Vitro: DMSO : ≥ 30 mg/mL (112.68 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	<div>Solvent / Mass / Concentration</div>	1 mg	5 mg	10 mg
		1 mM	3.7559 mL	18.7793 mL	37.5587 mL
		5 mM	0.7512 mL	3.7559 mL	7.5117 mL
		10 mM	0.3756 mL	1.8779 mL	3.7559 mL
	*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。				
	储备液的保存方式和期限 -80℃, 6 months; -20℃, 1 month. -80℃ 储存时，请在 6 个月内使用，-20℃ 储存时，请在 1 个月内使用。				
	In Vivo:				
	请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂：				
	——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶				
1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline					
Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution					

	<p>此方案可获得 ≥ 2.5 mg/mL (9.39 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中, 混合均匀向上述体系中加入 50 μL Tween-80, 混合均匀; 然后继续加入 450 μL 生理盐水定容至 1 mL。</p> <p>2.请依序添加每种溶剂: 10% DMSO\rightarrow 90% (20% SBE-β-CD in saline)</p> <p>Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (9.39 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中, 混合均匀。</p> <p>3.请依序添加每种溶剂: 10% DMSO \rightarrow90% corn oil</p> <p>Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (9.39 mM, 饱和度未知) 的澄清溶液, 此方案不适用于实验周期在半个月以上的实验。</p> <p>以 1 mL 工作液为例, 取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中, 混合均匀。</p>
References	<p>[1]. Bloch A, et al. On the mode of action of 7-deaza-adenosine (Tubercidin). <u>Biochim Biophys Acta. 1967 Mar 29;138(1):10-25.</u></p> <p>[2]. Kouni MH, et al. Prevention of tubercidin host toxicity by nitrobenzylthioinosine 5'-monophosphate for the treatment of schistosomiasis. <u>Antimicrob Agents Chemother. 1989 Jun;33(6):824-7.</u></p>

源叶生物