



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

产品名称: 3-[(2-氨基-6-甲基-3-吡啶基)甲基]-5-(2-羟基乙基)-4-甲基噻唑氯化物盐酸盐
产品别名: N3PT; N3-pyridyl thiamine

生物活性:					
Description	N3PT(N3-pyridyl thiamine) is a potent and selective transketolase(TK) inhibitor (IC50= 22 nM for Apo-TK) both in vitro and in vivo. IC50 Value: 22 nM(Apo-TK) ; 26 nM (EC50, Cellular TK) [1] Target: transketolase in vitro: N3PT inhibits transketolase activity in a cell based assay. Competitive inhibition of TK by N3PT in cells treated with increasing doses of thiamine, expressed as percentage enzymatic activity (the slope of initial linear range) of controls not treated with compounds [1]. in vivo: Tumors were induced in mice at day 0 and mice were then treated at day 7 with vehicle alone or with N3PT [2]. Low-thiamine diet enhances the sensitivity to N3PT inhibition of TK in spleen. Animals were switched to diets containing 16.5 mg/kg (unchanged), 5 mg/kg, 1 mg/kg, or 0 mg/kg thiamine, from a normal chow containing 16.5mg/kg thiamine [1].				
	In Vitro: DMSO : 2.86 mg/mL (8.50 mM; Need ultrasonic)				
Solvent&Solubility	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	2.9737 mL	14.8686 mL	29.7371 mL
		5 mM	0.5947 mL	2.9737 mL	5.9474 mL
		10 mM	---	---	---
		*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。			
References	[1]. Allen A. Thomas, Josh Ballard, Bryan Bernat. Potent and Selective Thiamine Antagonists That Inhibit Transketolase.				
	[2]. Jeno Gyuris, May Han, Ronan C, N3-pyridyl-thiamine and its use in cancer treatments. Patent Numeber: WO2005094803 A2				
	[3]. Thomas AA, De Meese J, Le Huerou Y, Non-charged thiamine analogs as inhibitors of enzyme transketolase. Bioorg Med Chem Lett. 2008 Jan 15;18(2):509-12.				