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产品名称: **NSC23005 (sodium)**
产品别名: **NSC23005 sodium**

生物活性:					
Description	NSC23005 sodium is a novel and effective p18 inhibitor (ED ₅₀ =5.21 nM) in promoting Hematopoietic stem cells (HSCs) expansion in both murine and human models.				
IC ₅₀ & Target	ED50: 5.21 nM (p18 ^{INK4C}) ^[1]				
In Vitro	NSC23005 sodium (Compound 40) is a novel class of INK4C (p18 ^{INK4C} or p18) small molecule inhibitor (p18SMIs), which is initially found by <i>in silico</i> 3D screening. NSC23005 sodium shows the most potent bioactivity in hematopoietic stem cells (HSCs) expansion (ED ₅₀ =5.21 nM). Notably, NSC23005 sodium does not show significant cytotoxicity toward 32D cells or HSCs, nor does it augment leukemia cell proliferation. NSC23005 sodium (ED ₅₀ =5.21 nM), shows no activity in promoting the proliferation of leukemia cells ^[1] .				
In Vivo	NSC23005 sodium selectively promote HSCs division by inhibiting p18, thereby activating CDK4/6. NSC23005 sodium is a novel and effective p18 inhibitor in promoting HSCs expansion in both murine and human models ^[1] .				
Solvent&Solubility	In Vitro: DMSO : 6.4 mg/mL (20.96 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent / Mass Concentration	1 mg	5 mg	10 mg
		1 mM	3.2751 mL	16.3757 mL	32.7515 mL
		5 mM	0.6550 mL	3.2751 mL	6.5503 mL
		10 mM	0.3275 mL	1.6376 mL	3.2751 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。				
References	[1]. Xie XQ, et al. Discovery of novel INK4C small-molecule inhibitors to promote human and murine hematopoietic stem cell ex vivo expansion. Sci Rep. 2015 Dec 18;5:18115.				
实验参考:					
Cell Assay	c-Kit enriched bone marrow (BM) cells are cultured for 5 days with cytokine combination plus NSC23005 sodium or DMSO. As positive controls, primary uncultured bone marrow cells are treated by ultraviolet radiation (UV) for 10 minutes prior to the staining process for apoptosis analysis. Apoptosis and cell death are measured by AnnexinV and DAPI staining in the Annexin V-FITC Apoptosis Detection Kit. Apoptosis is measured on an FACS analyzer. The data is analyzed using FlowJo software ^[1] .				
References	[1]. Xie XQ, et al. Discovery of novel INK4C small-molecule inhibitors to promote human and murine hematopoietic stem cell ex vivo expansion. Sci Rep. 2015 Dec 18;5:18115.				