

产品名称: **U-104**
 产品别名: **NSC-213841; MST-104**

生物活性:					
Description	U-104 is a potent carbonic anhydrase (CA) inhibitor for CA IX and CA XII with Ki of 45.1 nM and 4.5 nM; low inhibition for CA I and CA II. IC50 value: 45.1 nM/4.5 nM(Ki, CA IX/CA XII) [1] Target: Carbonic anhydrase inhibitor in vitro: U-104 (50 μM) blocks the mesenchymal phenotype in the cancer stem cells population in hypoxia condition of 4T1 cells. U-104 (<50 μM) significantly reduces migration in a dose-dependent manner in metastatic MDA-MB-231 LM2-4Luc+ cells , with cells growing as compact colonies similar to parental MDA-MB-231 cells [2]. in vivo: U-104 (38 mg/kg) inhibits primary tumor growth in the mice implanted orthotopically with MDA-MB-231 LM2-4Luc+ cells. U-104 (19 mg/kg) inhibits metastases formation in the 4T1 experimental metastasis mice model [1]. U-104 (38 mg/kg) significantly delay primary tumor growth and reduces cancer stem cell population in NOD/SCID mice orthotopically implanted with MDA-MB-231 LM2-4Luc+ cells. U-104 (5 mg/mL, oral gavage) shows a significant delay in tumor growth in Balb/c mice orthotopically implanted with 4T1 cells [2].				
Solvent&Solubility	In Vitro: DMSO : ≥ 47 mg/mL (151.95 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent / Mass Concentration	1 mg	5 mg	10 mg
		1 mM	3.2329 mL	16.1645 mL	32.3290 mL
		5 mM	0.6466 mL	3.2329 mL	6.4658 mL
		10 mM	0.3233 mL	1.6164 mL	3.2329 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]. Lou Y, et al. Targeting tumor hypoxia: suppression of breast tumor growth and metastasis by novel carbonic anhydrase IX inhibitors. Cancer Res. 2011 May 1;71(9):3364-76. [2]. Lock FE, et al. Targeting carbonic anhydrase IX depletes breast cancer stem cells within the hypoxic niche. Oncogene. 2013 Oct 31;32(44):5210-9.				