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产品名称: **ML141**
产品别名: **CID-2950007**

生物活性:

Description

ML141(CID-2950007) is a potent, selective and reversible non-competitive inhibitor of Cdc42 GTPase(IC50=200 nM) with low micromolar potency and selectivity against other members of the Rho family of GTPases (Rac1, Rab2, Rab7). IC50 value: 200 nM [1] Target: Cdc42 inhibitor in vitro: In the primary HTS bead-based assay using 1 mM EDTA and 100 nM BODIPY-FL-GTP, potency for CID2950007 was IC50 = 2.6 and 5.4 μ M for Cdc42 wild type and activated mutant, respectively [1]. ML141 exposure also enhanced the ability of TMX to suppress BLBC cell growth, through both induction of cell death and suppression of cell division [2]. in vivo: Treatment with ML141 + TMX caused a suppression of further tumour growth in vivo [2]. Parallel suppression of the conserved brain CDC42 activity by intracerebroventricular ML141 injection caused acute anxiety in mice [3]. using a pilocarpine-induced epileptic model, we found that pretreatment with ML141, a specific inhibitor of Cdc42, reduces seizure severity [4].

In Vitro:

DMSO : \geq 55 mg/mL (134.97 mM)

* " \geq " means soluble, but saturation unknown.

	Solvent Mass Concentration		1 mg	5 mg	10 mg
	1 mM	5 mM	10 mM		
Preparing	1 mM	2.4540 mL	12.2702 mL	24.5405 mL	
Stock Solutions	5 mM	0.4908 mL	2.4540 mL	4.9081 mL	
	10 mM	0.2454 mL	1.2270 mL	2.4540 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°C, 6 months; -20°C, 1 month。 -80°C 储存时,请在 6 个月内使用, -20°C 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: \geq 2.5 mg/mL (6.14 mM); Clear solution

此方案可获得 \geq 2.5 mg/mL (6.14 mM, 饱和度未知) 的澄清溶液。

以 1 mL 工作液为例,取 100 μ L 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μ L PEG300 中,混合均匀向上述体系中加入 50 μ L Tween-80,混合均匀;然后继续加入 450 μ L 生理盐水定容至 1 mL。

2.请依序添加每种溶剂: 10% DMSO→ 90% (20% SBE- β -CD in saline)

Solubility: \geq 2.5 mg/mL (6.14 mM); Clear solution



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	<p>此方案可获得 ≥ 2.5 mg/mL (6.14 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 (6.14 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (6.14 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]. Surviladze Z, et al. A Potent and Selective Inhibitor of Cdc42 GTPase. Probe Reports from the NIH Molecular Libraries Program</p> <p>[2]. Chen HY, et al. Inhibition of redox/Fyn/c-Cbl pathway function by Cdc42 controls tumour initiation capacity and tamoxifen sensitivity in basal-like breast cancer cells. EMBO Mol Med. 2013 May;5(5):723-36.</p> <p>[3]. Hanin G, et al. Competing targets of microRNA-608 affect anxiety and hypertension. Hum Mol Genet. 2014 Sep 1;23(17):4569-80.</p> <p>[4]. Zhang Y, et al. Inhibition of the small GTPase Cdc42 in regulation of epileptic-seizure in rats. Neuroscience. 2015 Mar 19;289:381-91.</p>

源叶生物