产品名称：**CK-636**
产品别名：**CK-636**

生物活性：

Description	CK-636 is a cell permeable inhibitor of Arp2/3 complex, that could inhibit actin polymerization, with IC_{50} values of 4 μM, 24 μM and 32 μM for human, fission yeast and bovine, respectively.
IC_{50} & Target	IC50: 4/24/32 μM (Human/fission yeast/bovine Arp2/3)[1].
In Vitro	CK-636 binds between Arp2 and Arp3, where it appears to block movement of Arp2 and Arp3 into their active conformation. CK-636 inserts into the hydrophobic core of Arp3 and alters its conformation. CK-636 prevents actin polymerization and the formation of actin filament comet tails by Listeria in infected SKOV3 cells (IC_{50}=22 μM)[1]. Additionally, CK-636-treated T cells exhibits elongated morphology with sharp pseudopodia at the leading edges, while the breadth of the CK-636-treated T cells is about 30% less than that of DMSO-treated T cells[2].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 49 mg/mL (172.30 mM)** **H_2O : < 0.1 mg/mL** (insoluble) * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.5164 mL	17.5821 mL	35.1642 mL
	5 mM	0.7033 mL	3.5164 mL	7.0328 mL
	10 mM	0.3516 mL	1.7582 mL	3.5164 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: ≥ 2.5 mg/mL (8.79 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (8.79 mM，饱和度未知) 的澄清溶液。

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。

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

Solubility: 2.5 mg/mL (8.79 mM); Suspended solution; Need ultrasonic

此方案可获得 2.5 mg/mL (8.79 mM)的均匀悬浊液，悬浊液可用于口服和腹腔注射。

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。

	3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (8.79 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (8.79 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。 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。
References	[1]. Nolen BJ, et al. Characterization of two classes of small molecule inhibitors of Arp2/3 complex. Nature. 2009 Aug 20;460(7258):1031-4. [2]. Kwon KW, et al. Migration of T cells on surfaces containing complex nanotopography. PLoS One. 2013 Sep 12;8(9):e73960.