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产品名称: **XMU-MP-1**
产品别名: **XMU-MP-1**

生物活性:

Description	XMU-MP-1 is a reversible and selective MST1/2 inhibitor with IC ₅₀ s of 71.1 and 38.1 nM, respectively.				
IC ₅₀ & Target	IC50: 71.1 (MST1), 38.1 nM (MST2) [1]				
In Vitro	At concentrations ranging from 0.1 to 10 μM, XMU-MP-1 reduces the phosphorylation of endogenous MOB1, LATS1/2, and YAP in HepG2 cells in a dose-dependent manner. XMU-MP-1 treatment inhibits hydrogen peroxide-stimulated MOB1 phosphorylation and MST1/2 autophosphorylation in a variety of cell lines, including mouse macrophage-like cells, human osteosarcoma, human colorectal adenocarcinoma cells. XMU-MP-1 blocks MST1/2 kinase activities, thereby activating the downstream effector Yes-associated protein and promoting cell growth. XMU-MP-1 can potently and reversibly suppress the activities of kinases MST1/2 and enhance their downstream YAP activation in cells[1].				
In Vivo	XMU-MP-1 displays excellent in vivo pharmacokinetics and is able to augment mouse intestinal repair, as well as liver repair and regeneration, in both acute and chronic liver injury mouse models at a dose of 1 to 3 mg/kg via intraperitoneal injection. XMUMP-1 treatment exhibits substantially greater repopulation rate of human hepatocytes in the Fah-deficient mouse model than in the vehicle-treated control, indicating that XMU-MP-1 treatment might facilitate human liver regeneration[1].				
Solvent&Solubility	In Vitro: DMSO : 8.33 mg/mL (20.00 mM; Need ultrasonic)				
	Preparing Stock Solutions	<div><div>Solvent</div><div>Mass</div><div>Concentration</div></div>	1 mg	5 mg	10 mg
		1 mM	2.4011 mL	12.0054 mL	24.0108 mL
		5 mM	0.4802 mL	2.4011 mL	4.8022 mL
		10 mM	0.2401 mL	1.2005 mL	2.4011 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。				
	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: ≥ 0.83 mg/mL (1.99 mM); Clear solution 此方案可获得 ≥ 0.83 mg/mL (1.99 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 8.3 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。				



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	<p>2.请依序添加每种溶剂: 10% DMSO→ 90% (20% SBE-β-CD in saline)</p> <p>Solubility: ≥ 0.83 mg/mL (1.99 mM); Clear solution</p> <p>此方案可获得 ≥ 0.83 mg/mL (1.99 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 μL 8.3 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 →90% corn oil</p> <p>Solubility: ≥ 0.83 mg/mL (1.99 mM); Clear solution</p> <p>此方案可获得 ≥ 0.83 mg/mL (1.99 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 8.3 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中, 混合均匀。</p>
References	[1]. Fan F, et al. Pharmacological targeting of kinases MST1 and MST2 augments tissue repair and regeneration. Sci Transl Med. 2016 Aug 17;8(352):352ra108.
实验参考:	
Kinase Assay	XMU-MP-1 is dissolved in DMSO (stock concentration, 10 mM). For the <i>in vitro</i> kinase inhibition assays, recombinant GST-tagged MOB1a and various forms of recombinant His-tagged full-length MST1 or MST2 kinase are expressed and purified from <i>Escherichia coli</i> . The assays are performed with the various doses of XMU-MP-1 in the kinase assay buffer for 30 min at 30°C[1].
References	[1]. Fan F, et al. Pharmacological targeting of kinases MST1 and MST2 augments tissue repair and regeneration. Sci Transl Med. 2016 Aug 17;8(352):352ra108.

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