



上海源叶生物科技有限公司
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产品名称: YLF-466D
产品别名: C24

生物活性:

Description	YLF-466D is a newly developed AMPK activator, which inhibits platelet aggregation.				
IC ₅₀ & Target	AMPK				
In Vitro	The effect of YLF-466D on platelet AMPK and aggregation are examined to test whether YLF-466D can stimulate AMPK in platelets and thereby suppress aggregation. Platelet AMPK is activated by YLF-466D, which is confirmed with activation-dependent phosphorylation at Thr172. Consistent with this result, YLF-466D inhibits platelet aggregation induced by thrombin. Such inhibition is observed in the aggregation elicited by ADP and collagen as well as thrombin, indicating that the antiaggregatory effect of YLF-466D is not platelet-agonist specific but common, regardless of agonist type. All the effects on AMPK and aggregation are concentration-dependent with the highest efficacy at 150 μM. IC50 against thrombin-, ADP- and collagen-induced aggregation are approximately 84, 55 and 87 μM, respectively[1].				
Solvent&Solubility	In Vitro: DMSO : ≥ 100 mg/mL (214.62 mM) H₂O : < 0.1 mg/mL (insoluble) * "≥" means soluble, but saturation unknown.				
		Solvent Mass Concentration	1 mg	5 mg	10 mg
	Preparing	1 mM	2.1462 mL	10.7312 mL	21.4625 mL
	Stock Solutions	5 mM	0.4292 mL	2.1462 mL	4.2925 mL
		10 mM	0.2146 mL	1.0731 mL	2.1462 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: ≥ 2.5 mg/mL (5.37 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.37 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% corn oil

Solubility: ≥ 2.5 mg/mL (5.37 mM); Clear solution



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	此方案可获得 ≥ 2.5 mg/mL (5.37 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]. Liu Y, et al. Antiplatelet effect of a newly developed AMP-activated protein kinase activator YLF-466D. Eur J Pharmacol. 2015 Aug 5;760:81-7.
实验参考:	
Kinase Assay	Blood is collected from the abdominal aorta of ether anesthetized rats using 3.2% sodium citrate as an anticoagulant (sodium citrate:blood=1:9) and diluted with normal saline (1:1). Blood is incubated with YLF-466D (0, 50, 100 and 150 μM) for 3 min and aggregation is induced with 7.5 μg/mL Collagen. Aggregation is assessed by measuring the impedance change with a whole blood aggregometer[1].
References	[1]. Liu Y, et al. Antiplatelet effect of a newly developed AMP-activated protein kinase activator YLF-466D. Eur J Pharmacol. 2015 Aug 5;760:81-7.

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