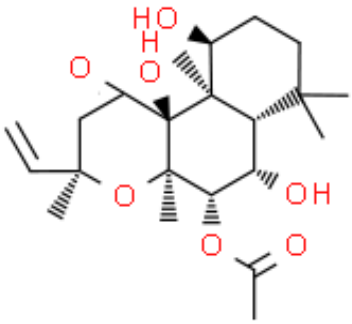
Product Data Sheet

Cas No.:	66575-29-9	Cat. No:	PC14930
Product Name:	Forskolin.		
Product synonym:	佛司可林;福斯高林;毛喉萜;考福新;锦紫苏醇;腺苷酸环化酶激活剂;佛司可林(标准品);Forskolin 佛司可林;zzstandard 品牌毛喉素对照品;长春新碱;佛司可林 USP标准品;佛司可林 标准品;佛司可林 弗斯克林 Forskolin;佛司可林, 来源于毛喉鞘蕊花;佛司可林Forskolin;满萘喃酮;毛喉素;毛喉素(P);毛喉素(RG);佛司可林(福斯高林,毛喉萜,考福新,锦紫苏醇);弗司扣林,毛喉萜,福司柯林;弗斯可林;毛喉鞘蕊花提取物		
Chemical name:	Forskolin.		
MF:	C22H34O7	FW:	410.5012
Purity:	≥99%	Batch No.:	-
Storage:			
Structural formula:			
λmax:	-	Formulation:	-
Solubility :			
SMILES :	O1[C@](C([H])=C([H])[H])(C([H])([H])[H])C([H])([H])C([C@]2([C@@]1(C([H])([H])[H])[C@]([H])([C@]([H])([C@@]1([H])C(C([H])([H])[H])(C([H])([H])[H])C([H])([H])C([H])([H])[C@@]([H])([C@@]12C([H])([H])[H])O[H])O[H])OC(C([H])([H])[H])=O)O[H])=O		
InChI Code:	-		
InChI Key:			
WARNING This product is not for human or veterinary use.			

Product Description

腺苷酸环化酶激活剂，Forskolin 是一种有效的 腺苷酸环化酶 激活剂，结合到 I 型腺苷酸环化酶 IC50 为 41 nM，激活 I 型腺苷酸环化酶 EC50 为 0.5 μM。

生物活性	Forskolin (Coleonol) is a potent **adenylate cyclase** activator with an **IC_{50}** of 41 nM and an **EC_{50}** of 0.5 μM for **type I adenylyl cyclase**. Forskolin is also an inducer of intracellular **cAMP** formation. Forskolin induces differentiation of various cell types and activates **pregnane X receptor (PXR)** and **FXR**. Forskolin exerts a inotropic effect on the heart, and has platelet antiaggregatory and antihypertensive actions. Forskolin also induces **autophagy**.
IC50 & Target[1][2]	IC50: 41 nM (Adenylyl cyclase) EC50: 0.5 μM (Adenylyl cyclase)

体外研究(In Vitro)	Forskolin (Coleonol) is also a potent exosome biogenesis and/or secretion activator in prostate cancer (PC) cells. Forskolin (Fsk) is a naturally occurring diterpene isolated from Coleus *forskholii*, directly activates adenylyl cyclase (AC) through its catalytic subunit to increase intracellular levels of cyclic adenosine monophosphate (cAMP). Forskolin (Fsk) affects the proliferation of the human T-cell lines such as Kit 225 and MT-2. Forskolin treatment inhibits the proliferation of both Kit 225 and MT-2 cells in a dose-dependent manner with an IC_{50} equal to ~5 μM Fsk. Forskolin treatment (10-100 μM) increases cAMPi levels ~5- to 20-fold above basal levels, which reache maximum levels between 50-100 μM Forskolin. **Medlife has not independently confirmed the accuracy of these methods. They are for reference only.**
体内研究(In Vivo)	The Forskolin (Coleonol)-treated Mrp4 mice shows an increased number of Ki67-positive and cleaved caspase 3-positive ECs, a significant decrease in the amount of pericyte coverage, and a reduced number of empty sleeves. In pups exposed to hyperoxia (75% oxygen) from P7 to P12, the Mrp4 mice shows a significant increase in the unvascularized retinal area. The average blood glucose in the healthy rat group is 102.12±1.94 mg/dL, 101.25±3.56 for control group and 103±2.08 in forskolin group. The data shows that glucose levels at the end of the study are lower in forskolin group, with a significant difference according to the statistical tests applied (p=0.03). **Medlife has not independently confirmed the accuracy of these methods. They are for reference only.**
包装储存	4°C, protect from light *In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

溶解度数据

体外研究:

DMSO : 100 mg/mL (243.61 mM; Need ultrasonic)

配制储备溶液	溶剂体积 质量 浓度	1 mg	5 mg	10 mg
	1 mM	2.4361 mL	12.1803 mL	24.3605 mL
	5 mM	0.4872 mL	2.4361 mL	4.8721 mL
	10 mM	0.2436 mL	1.2180 mL	2.4361 mL

* 产品不同，其溶解度不同。建议根据产品选择合适的溶剂配制储备溶液；配成溶液后，**建议分装保存，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 (protect from light)。-80°C 储存时，建议在 6 个月内使用，-20°C 储存时，建议在 1 个月内使用。

体内研究:

建议根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都建议先按照 **体外研究** 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. 建议依照次序添加每种溶剂： 10% DMSO 40% PEG300 5% Tween-80 45% saline

   Solubility: ≥ 2.5 mg/mL (6.09 mM); Clear solution

   此方案可获得 ≥ 2.5 mg/mL (6.09 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。

   将 0.9 g 氯化钠，完全溶解于 100 mL ddH?O 中，得到澄清透明的生理盐水溶液

2. 建议依照次序添加每种溶剂： 10% DMSO 90% corn oil

   Solubility: ≥ 2.5 mg/mL (6.09 mM); Clear solution

   此方案可获得 ≥ 2.5 mg/mL (6.09 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。

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