产品名称：4-(Phenethylamino)quinazoline-6-carbonitrile
产品别名：Senexin A

生物活性：

Description	Senexin A is a CDK8 inhibitor with an IC50 of 280 nM.	
IC_{50} & Target	CDK19	CDK8
	0.31 μM (Kd)	0.83 μM (Kd)
In Vitro	Senexin A inhibits CDK8 and CDK19 ATP site binding with K_d50 of 0.83 μM and 0.31 μM, respectively and CDK8 kinase activity with IC_{50} of 0.28 μM. Senexin A inhibits β-catenin–dependent transcription in HCT116 colon carcinoma cells. The induction of transcription factor EGR1 upon serum starvation, followed by readdition of serum, is strongly inhibited by Senexin A in HT1080 cells. Senexin A inhibits only p21-induced transcription but not other biological effects of p21. Senexin A also decreases the expression of many secreted tumor-promoting factors in doxorubicin-treated wild-type HCT116 cells[1].	
In Vivo	Five daily treatment of Senexin A fully reverses tumor-promoting effect of chemotherapy. Senexin A shows no detectable toxicity and no significant effects on body weight, organ weights, or blood cell counts in C57BL/6 mice during the treatment. This effect of doxorubicin treatment is completely abolished, however, when doxorubicin injection is followed by administration of Senexin A. Senexin A treatment strongly improves the response of A549/MEF tumors to doxorubicin[1].	

Solvent&Solubility

In Vitro:

DMSO : ≥ 100 mg/mL (364.54 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6454 mL	18.2269 mL	36.4538 mL
5 mM	0.7291 mL	3.6454 mL	7.2908 mL
10 mM	0.3645 mL	1.8227 mL	3.6454 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 (9.11 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (9.11 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 (9.11 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (9.11 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]. Porter DC, et al. Cyclin-dependent kinase 8 mediates chemotherapy-induced tumor-promoting paracrine activities. Proc Natl Acad Sci U S A. 2012 Aug 21;109(34):13799-804.

实验参考：

Animal Administration	Mice: Senexin A toxicity study is conducted by Taconic in C57BL/6 mice, using five mice per group treated with 20 mg/kg Senexin A or carrier (80% propylene glycol), with five daily i.p. injections. Mice are weighed on days 3 and 6, and killed on day 6. Organ weights are determined for brain, kidney, thymus, spleen, lung, and liver. Terminal blood samples are analyzed to determine the numbers of total white blood cells, neutrophils, lymphocytes, monocytes, eosinophils, and basophils[1].
References	[1]. Porter DC, et al. Cyclin-dependent kinase 8 mediates chemotherapy-induced tumor-promoting paracrine activities. Proc Natl Acad Sci U S A. 2012 Aug 21;109(34):13799-804.