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产品名称：PHTPP
产品别名：PHTPP

生物活性：

Description	PHTPP is a selective ERβ antagonist.
IC_{50} & Target	ERβ[1]
In Vitro	PHTPP is a selective ERβ antagonist. PHTPP reduces FSH-mediated cAMP production by 80% ($p<0.01$) while it has no effect on basal cAMP[1]. PHTPP (10^{-6} M) inhibits E2-stimulated ERβ activity, but does not suppress E2-stimulated ERα activity. A high dose of PHTPP (10^{-6} M) slightly increases class 1 *Igf1* mRNA expression, and facilitates the DPN-induced increase in class 1 *Igf1* mRNA expression[2].

Solvent&Solubility

In Vitro:

DMSO : 25 mg/mL (**59.06 mM;** Need ultrasonic)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3623 mL	11.8117 mL	23.6233 mL
	5 mM	0.4725 mL	2.3623 mL	4.7247 mL
	10 mM	0.2362 mL	1.1812 mL	2.3623 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 (5.91 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.91 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 (5.91 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.91 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。

[1]. Compton DR, et al. Pyrazolo[1,5-a]pyrimidines: estrogen receptor ligands possessing estrogen

References	receptor beta antagonist activity. J Med Chem. 2004 Nov 18;47(24):5872-93. [2]. Ogo Y, et al. IGF-1 gene expression is differentially regulated by estrogen receptors α and β in mouse endometrial stromal cells and ovarian granulosa cells. J Reprod Dev. 2014;60(3):216-23. Epub 2014 Mar 25.
实验参考：	
Cell Assay	Cells are plated at a density of 3 to 4×10^5 in 1 mL of medium per well in a 24-well plate for cell viability and cAMP analysis. Cells are cultured in Dulbecco's Modified Eagle Medium with PHTPP (1 μM), or ethanol (0.1%) as the vehicle. The incubator is set to an atmosphere of 5% CO_2 in air at 37°C, and cultures are allowed to acclimate for at least 24 h. The culture medium is then aspirated and replaced with serum-free DMEM/F12 containing 0.1 μM androstenedione. The cells are collected for intracellular cAMP and to test cell viability[1].
References	[1]. Compton DR, et al. Pyrazolo[1,5-a]pyrimidines: estrogen receptor ligands possessing estrogen receptor beta antagonist activity. J Med Chem. 2004 Nov 18;47(24):5872-93. [2]. Ogo Y, et al. IGF-1 gene expression is differentially regulated by estrogen receptors α and β in mouse endometrial stromal cells and ovarian granulosa cells. J Reprod Dev. 2014;60(3):216-23. Epub 2014 Mar 25.