产品名称：4-[(E)-2-(5,6,7,8-四氢-5,5,8,8-四甲基-2-萘基)-1-丙烯基]苯甲酸
产品别名：TTNPB

生物活性：

Description	TTNPB is a highly potent RAR agonist. Competitive binding assays using human RARs yield IC_{50}s of α=5.1 nM, β= 4.5 nM, and γ=□9.3 nM, respectively.
IC_{50} & Target	IC50: 5.1 nM (RARα), 4.5 nM (RARβ), 9.3 nM (RARγ)[1]
In Vitro	TTNPB inhibits binding of [^{3}H]tRA with IC50s of 3.8 nM, 4 nM, and 4.5 nM for human RARα, β, and γ, respectively. TTNPB competes for [^{3}H]tRA binding to CRABPI with IC50s of 1800 nM[1].

Solvent&Solubility

In Vitro:

DMSO : 11.25 mg/mL (**32.28 mM;** Need ultrasonic and warming)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8696 mL	14.3480 mL	28.6961 mL
	5 mM	0.5739 mL	2.8696 mL	5.7392 mL
	10 mM	0.2870 mL	1.4348 mL	2.8696 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→ 90% (20% SBE-β-CD in saline)

Solubility: 1.25 mg/mL (3.59 mM); Suspended solution; Need ultrasonic

此方案可获得 1.25 mg/mL (3.59 mM)的均匀悬浊液，悬浊液可用于口服和腹腔注射。

以 1 mL 工作液为例，取 100 μL 12.5 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。

2 请依序添加每种溶剂： 10% DMSO →90% corn oil

Solubility: ≥ 1.25 mg/mL (3.59 mM); Clear solution

此方案可获得 ≥ 1.25 mg/mL (3.59 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 12.5 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。

References	[1]. Pignatello MA, et al. Multiple factors contribute to the toxicity of the aromatic retinoid, TTNPB (Ro 13-7410): binding affinities and disposition. Toxicol Appl Pharmacol. 1997 Feb;142(2):319-27.

实验参考：

	Labeled and unlabeled retinoids are added to nucleosol or cytosolic fractions in ethanol so that the total amount of ethanol added is constant in all tubes and did not exceed 2% of the incubation

Kinase Assay	volume. The receptor preparations are incubated with retinoids at 47°C for 4-6 hr. Sephadex PD-10 desalting columns are used to separate bound radioligand from free radioligand after equilibrium is achieved. For competitive binding assays, varying concentrations of unlabeled competing ligand are incubated with the appropriate nucleosol or cytosol in the presence of a fixed concentration of [^{3}H]tRA (sp act. □49.3 Ci/mmol) or [^{3}H]9-cis RA (sp. act. 24.0 Ci/mmol). Final concentrations of [^{3}H] tRA and [^{3}H]9-cis RA for nuclear receptor binding assays are 5nM. Final concentrations of [^{3}H]tRA for CRABP binding assays is 30 nM. The IC_{50}s are calculated. For saturation kinetics, increasing concentrations of radiolabeled ligand ([^{3}H]tRA sp. act. □49.3 Ci/mmol, [^{3}H]TTNPB sp. act. 5.5 Ci/mmol) are added to the nucleosol of the appropriate receptor subtype in the presence (nonspecific binding) or absence (total binding) of a 100-fold molar excess of the corresponding unlabeled retinoid. Specific binding is defined as the total binding minus nonspecific binding. Saturation kinetics are calculated [1].
References	[1]. Pignatello MA, et al. Multiple factors contribute to the toxicity of the aromatic retinoid, TTNPB (Ro 13-7410): binding affinities and disposition. Toxicol Appl Pharmacol. 1997 Feb;142(2):319-27.