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产品名称：NOD-IN-1
产品别名：NOD-IN-1

生物活性：

Description	NOD-IN-1 is a potent mixed inhibitor of nucleotide-binding oligomerization domain (NOD)-like receptors, NOD1 and NOD2, with IC_{50} of 5.74 μM and 6.45 μM, respectively.
IC_{50} & Target	IC50: 5.74 μM (NOD1), 6.45 μM (NOD2)[1]
In Vitro	NOD-IN-1 (compound 4) is potent mixed inhibitor of NOD1 and NOD2, displaying a balanced inhibitory activity on both targets in the low micromolar range. NOD-IN-1 (IC_{50} (NOD1)=5.74 μM; IC_{50} (NOD2)=6.45 μM) is identified as the best of the series, possessing NOD1- and NOD2-inhibitory activities in the lower micromolar range. These results show that NOD-IN-1 is 7-fold less potent than Noditinib-1 in terms of NOD1 inhibition and completely devoid of selective activity for NOD1 or NOD2 as opposed to Noditinib-1. NOD-IN-1 exhibits balanced dual activities of less than 10 μM on the two targets[1].

Solvent&Solubility

In Vitro:

DMSO : 100 mg/mL (**291.21 mM;** Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9121 mL	14.5603 mL	29.1206 mL
	5 mM	0.5824 mL	2.9121 mL	5.8241 mL
	10 mM	0.2912 mL	1.4560 mL	2.9121 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 (7.28 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (7.28 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% (20% SBE-β-CD in saline)

Solubility: ≥ 2.5 mg/mL (7.28 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (7.28 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 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。

	3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (7.28 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (7.28 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]. Kecek Plesec K, et al. Identification of indole scaffold-based dual inhibitors of NOD1 and NOD2. Bioorg Med Chem. 2016 Nov 1;24(21):5221-5234.

实验参考：

Cell Assay	An MTS assay in which the proliferation rates of HEK-Blue NOD1 cells are measured in the presence of Noditinib-1 and of the synthesized potential NOD1 inhibitor NOD-IN-1 is employed to screen these compounds for potential cytotoxicity. Cells are treated for 24 h with the compound of interest at concentrations of up to 25 μM. Comparison of the resulting metabolic activities with that of the untreated control showed that all compounds are well tolerated by HEK-Blue NOD1 cells, since their residual metabolic activities do not fall below 80% at the maximum concentration tested[1].
References	[1]. Kecek Plesec K, et al. Identification of indole scaffold-based dual inhibitors of NOD1 and NOD2. Bioorg Med Chem. 2016 Nov 1;24(21):5221-5234.