产品名称：**4-甲基-N1-(3-苯丙基)-1,2-苯二胺**
产品别名：**JSH-23**

生物活性：

Description	JSH-23 is an NF-κB inhibitor which inhibits NF-κB transcriptional activity with an IC50 of 7.1 μM in lipopolysaccharide (LPS)-stimulated macrophages RAW 264.7. JSH-23 inhibits nuclear translocation of NF-κB p65 without affecting IκBα degradation[1].
IC_{50} & Target [1]	NF-κB
	7.1 μM (IC_{50}, in RAW 264.7 cells)

In Vitro

JSH-2 (1-300 μM; 24 hours) at <100 μM does not show significant cytotoxic effects on the RAW 264.7 cells[1].

Nuclear amount of NF-κB p65 is markedly increased upon exposure to LPS for 1 h. Treatment of JSH-23 (30 μM; 1 hours) to LPS- stimulated RAW 264.7 cells decreases nuclear content of NF-κB p65 in a dose-dependent manner[1].

Cell Cytotoxicity Assay[1]

Cell Line:	Macrophages RAW 264.7
Concentration:	1, 3, 10, 30, 100, 300 μM
Incubation Time:	24 hours
Result:	Did not show significant cytotoxic effects at <100 μM.

Western Blot Analysis[1]

Cell Line:	Macrophages RAW 264.7 with LPS-stimulated
Concentration:	30 μM
Incubation Time:	1 hour
Result:	Decreased nuclear content of NF-κB p65 in a dose-dependent manner, corresponding to 49±4% inhibition at 3 μM, 75±7% at 10 μM and 95±8% at 30 μM.

In Vivo

JSH-23 (1 mg/kg, 3 mg/kg; orally administered; daily; for 2 weeks) significantly reverses the nerve conduction and nerve blood flow deficits seen in diabetic rats[1].

Animal Model:	Male Sprague Dawley diabetic rats (250-270 g)[1]
Dosage:	1 mg/kg, 3 mg/kg
Administration:	Orally administered; daily; for 2 weeks
Result:	Produced significant improvement in motor nerve conduction velocity (MNCV).

In Vitro:

DMSO : ≥ 56 mg/mL (233.00 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.1608 mL	20.8039 mL	41.6077 mL
5 mM	0.8322 mL	4.1608 mL	8.3215 mL
10 mM	0.4161 mL	2.0804 mL	4.1608 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。

Solvent&Solubility	***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 (10.40 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (10.40 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 (10.40 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (10.40 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]. Shin HM, et al. Inhibitory action of novel aromatic diamine compound on lipopolysaccharide-induced nuclear translocation of NF-kappaB without affecting IkappaB degradation. FEBS Lett. 2004 Jul 30;571(1-3):50-4. [2]. Kumar A, et al. JSH-23 targets nuclear factor-kappa B and reverses various deficits in experimental diabetic neuropathy: effect on neuroinflammation and antioxidant defence. Diabetes Obes Metab. 2011 Aug;13(8):750-8.