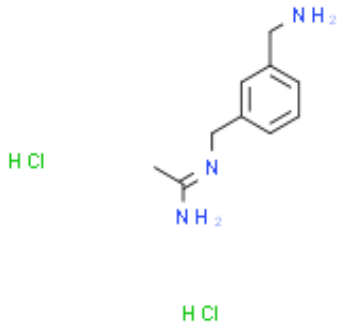
Product Data Sheet

Cas No.:	214358-33-5	Cat. No:	PC15180
Product Name:	1400W dihydrochloride		
Product synonym:	N-((3-(氨基甲基)苯基)甲基)乙脒二盐酸盐;N-(3-(氨甲基)苄基)乙脒盐酸盐;N-[3-(氨甲基)苄基]二盐酸乙脒;N-[3-(氨甲基)苄基]乙脒二盐酸盐;N-([3-(aminomethyl)phenyl]methyl)ethanimidamide 二盐酸盐;N-[[3-(氨基甲基)苯基]甲基]乙脒二盐酸盐		
Chemical name:	1400W dihydrochloride		
MF:	C10H17CL2N3	FW:	250.1681
Purity:	≥98%	Batch No.:	-
Storage:			
Structural formula:			
λmax：	-	Formulation：	-
Solubility :			
SMILES :	Cl[H].Cl[H].N(=C(/C([H])([H])[H])\N([H])[H])/C([H])([H])C1=C([H])C([H])=C([H])C(C([H])([H])N([H])[H])=C1[H]		
InChI Code:	-		
InChI Key:			
WARNING This product is not for human or veterinary use.			

Product Description

INOS抑制剂，1400W dihydrochloride是高效，选择性的诱导型一氧化氮合成酶 (NO synthase) 抑制剂，Ki 值为7 nM。

生物活性	1400W dihydrochloride is a potent and selective inhibitor of human inducible **NO synthase** with K_i values of 7 nM.
IC50 & Target[1][2]	Ki: 7 nM (iNOS), 2 μM (nNOS), 50 μM (eNOS)

体外研究(In Vitro)	1400W is a slow, tight binding inhibitor of human inducible nitric- oxide synthase (iNOS). The slow onset of inhibition by 1400W shows saturation kinetics with a maximal rate constant of 0.028 s and a binding constant of 2.0 μM. Inhibition is dependent on the cofactor NADPH. 1400W is at least 5000-fold selective for iNOS versus eNOS. In contrast, inhibition of human neuronal NOS and endothelial NOS (eNOS) is relatively weaker, rapidly reversible, and competitive with L-arginine, with K_i values of 2 μM and 50 μM, respectively. 1400W treatment inhibits iNOS expression without affecting nNOS or eNOS. 1400W also reduces NO, 3-NT and MDA production, and prevents neuronal cell apoptosis in cerebral cortex. **Medlife has not independently confirmed the accuracy of these methods. They are for reference only.**
体内研究(In Vivo)	1400W potently (ED_{50}=0.3 mg/kg) reduces the delayed vascular injury in rats attributable to LPS-induced iNOS but fails to exacerbate acute vascular leakage when given concurrently with LPS. Administration of 1400W lowers NOx levels in all the experimental groups. In addition, lipid peroxidation, the percentage of apoptotic cells, and nitrated protein expression fall in the late post-hypoxia period (48 h and 5 days). **Medlife has not independently confirmed the accuracy of these methods. They are for reference only.**
包装储存	4°C, sealed storage, away from moisture *In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)
溶解度数据	*体外研究:* **H_2O : 100 mg/mL (399.73 mM;** Need ultrasonic) **DMSO : 20 mg/mL (79.95 mM;** Need ultrasonic)

配制储备溶液	质量 溶剂体积 浓度	1 mg	5 mg	10 mg
	1 mM	3.9973 mL	19.9864 mL	39.9728 mL
	5 mM	0.7995 mL	3.9973 mL	7.9946 mL
	10 mM	0.3997 mL	1.9986 mL	3.9973 mL

* 产品不同，其溶解度不同。建议根据产品选择合适的溶剂配制储备溶液；配成溶液后，**建议分装保存，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 (sealed storage, away from moisture)。-80°C 储存时，建议在 6 个月内使用，-20°C 储存时，建议在 1 个月内使用。

体内研究:

建议根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都建议先按照 **体外研究** 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. 建议依照次序添加每种溶剂： PBS
   Solubility: 100 mg/mL (399.73 mM); Clear solution; Need ultrasonic

2. 建议依照次序添加每种溶剂： 10% DMSO 40% PEG300 5% Tween-80 45% saline

Solubility: ≥ 2 mg/mL (7.99 mM); Clear solution

此方案可获得 ≥ 2 mg/mL (7.99 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 20.0 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。

将 0.9 g 氯化钠，完全溶解于 100 mL ddH?O 中，得到澄清透明的生理盐水溶液

3. 建议依照次序添加每种溶剂： 10% DMSO 90% (20% SBE-β-CD in saline)

Solubility: ≥ 2 mg/mL (7.99 mM); Clear solution

此方案可获得 ≥ 2 mg/mL (7.99 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 20.0 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。

将 2 g 磺丁基醚 β-环糊精加入 5 mL 生理盐水中，再用生理盐水定容至 10 mL，完全溶解，澄清透明

4. 建议依照次序添加每种溶剂： 10% DMSO 90% corn oil

Solubility: ≥ 2 mg/mL (7.99 mM); Clear solution

此方案可获得 ≥ 2 mg/mL (7.99 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 20.0 mg/mL 的澄清 DMSO 储备液加到 900 μL玉米油中，混合均匀。

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