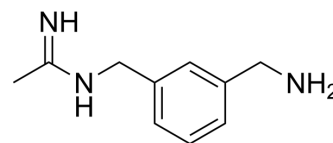


## 1400W

Cat. No.:	HY-18730
CAS No.:	180001-34-7
Molecular Formula:	C <sub>10</sub> H <sub>15</sub> N <sub>3</sub>
Molecular Weight:	177.25
Target:	NO Synthase; Apoptosis
Pathway:	Immunology/Inflammation; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	1400W is a slow, tight binding, and highly selective inducible nitric-oxide synthase (iNOS) inhibitor, with a K <sub>d</sub> value ≤ 7 nM. 1400W inhibits iNOS induction in microglial cells, and reduces generation of NO, thereby mitigating oxidative stress and neuronal cell apoptosis in the rat cerebral cortex, and improving the spatial memory dysfunction caused by acute hypobaric hypoxia-reoxygenation <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	Ki: 2 μM (nNOS), 50 μM (eNOS) <sup>[1]</sup>
In Vitro	1400W (60 μM, 1 h) reduces NO, 3-NT and MDA production in primary adult microglia, and prevents neuronal cell apoptosis in cerebral cortex <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	1400W (0.1-10 mg/kg, s.c., once time) inhibits the leakage of rats ileum, with an EC <sub>50</sub> of 0.16 mg/kg <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Mol Cell. 2020 Jan 2;77(1):95-107.e5.
- Mol Cell. 2020 Jan 2;77(1):95-107.e5.
- Redox Biol. 2023 Sep 27, 102905.
- ISME J. 2024 Jan 28:wrae014.
- Sci Total Environ. 2020 Jan 1;698:134294.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

[1]. Garvey EP, et al. 1400W is a slow, tight binding, and highly selective inhibitor of inducible nitric-oxide synthase in vitro and in vivo. J Biol Chem. 1997 Feb 21;272(8):4959-63.

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[2]. Shi Q, et al. 1400W ameliorates acute hypobaric hypoxia/reoxygenation-induced cognitive deficits by suppressing the induction of inducible nitric oxide synthase in rat cerebral cortex microglia. Behav Brain Res. 2017 Feb 15;319:188-199.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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