

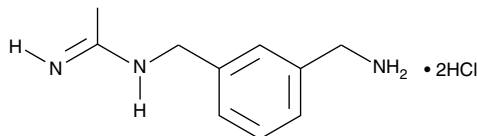
Product Information



1400W (hydrochloride)

Item No. 81520

CAS Registry No.: 214358-33-5
Formal Name: N-[[3-(aminomethyl)phenyl]methyl]-ethanimidamide, dihydrochloride
MF: $C_{10}H_{15}N_3 \cdot 2HCl$
FW: 250.2
Purity: $\geq 98\%$
Stability: ≥ 1 year at $-20^\circ C$
Supplied as: A crystalline solid
Melting Point: $216-221^\circ C$



Laboratory Procedures

1400W is a potent, selective inhibitor of inducible nitric oxide synthase (iNOS).¹ For long term storage, we suggest that 1400W be stored as supplied at $-20^\circ C$. It should be stable for at least one year.

1400W (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1400W (hydrochloride) in an organic solvent. 1400W (hydrochloride) is slightly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1400W (hydrochloride) in these solvents is approximately 0.25 mg/ml. 1400W (hydrochloride) will be stable for at least six months in these solvents if stored at $-20^\circ C$.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 1400W (hydrochloride) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of 1400W (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

1400W is a slow, tight binding inhibitor of human iNOS.¹ Using purified human iNOS, nNOS, and eNOS, 1400W exhibits K_i values of 7 nM, 2 μM , and 50 μM , respectively.¹ Similarly, in rat aortic rings 1400W is at least 1000-fold more potent against iNOS compared to eNOS.¹ In mice bearing a murine mammary carcinoma, continuous infusion of 1400W at a rate of 10 mg/kg for 6 days decreased tumor weight approximately 50% compared to controls.²

References

1. Garvey, E.P., Oplinger, J.A., Furfine, E.S., *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.* **272**, 4959-4963 (1997).
2. Thomsen, L.L., Scott, J.M.J., Topley, P., *et al.* Selective inhibition of inducible nitric oxide synthase inhibits tumor growth *in vivo*: Studies with 1400W, a novel inhibitor. *Cancer Res.* **57**, 3300-3304 (1997).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/81520

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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