**Proteins** 

# **Screening Libraries**

# **Product** Data Sheet

# 2-Iminobiotin

Cat. No.: HY-118700 CAS No.: 13395-35-2 Molecular Formula:  $C_{10}H_{17}N_{3}O_{2}S$ Molecular Weight: 243.33

Target: NO Synthase

Pathway: Immunology/Inflammation Storage: Powder -20°C 3 years

2 years -80°C In solvent 6 months

-20°C 1 month

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 12.5 mg/mL (51.37 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.1096 mL	20.5482 mL	41.0965 mL
	5 mM	0.8219 mL	4.1096 mL	8.2193 mL
	10 mM	0.4110 mL	2.0548 mL	4.1096 mL

Please refer to the solubility information to select the appropriate solvent.

## **BIOLOGICAL ACTIVITY**

Description 2-Iminobiotin (Guanidinobiotin) is a biotin (vitamin H or B7) analog. 2-Iminobiotin is a reversible nitric oxide synthases inhibitor with  $K_i$ s of 21.8 and 37.5 $\mu$ M for murine iNOS and rat n-cNOS, respectively<sup>[1]</sup>. 2-Iminobiotin superimposes on hypothermia protects human neuronal cells from hypoxia-induced cell damage<sup>[2]</sup>.

iNOS IC<sub>50</sub> & Target

> Application of low concentrations of 2-Iminobiotin (2-IB; 10 ng/mL and 30 ng/mL) superimposed on hypothermia abrogates the hypoxia-induced lactate dehydrogenase (LDH) increase, resulting in LDH levels that were not different from the normoxia control<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### **REFERENCES**

In Vitro

[1]. Sup SJ, et al. 2-Iminobiotin is an inhibitor of nitric oxide synthases. Biochem Biophys Res Commun. 1994 Oct 28;204(2):962-8.



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