产品名称：S-(2-BORONOETHYL)-L-CYSTEINE HYDROCHLORIDE
产品别名：BEC hydrochloride

生物活性：

Description

BEC hydrochloride is a slow-binding and competitive Arginase II inhibitor with Ki of 0.31 μM (ph 7.5). target: Arginase II [1]; In vitro: BEC hydrochloride causes significant enhancement of NO-dependent smooth muscle relaxation in this tissue. [2] BEC hydrochloride enhances perivascular and peribronchiolar lung inflammation, mucus metaplasia, NF-κB DNA binding, and mRNA expression of the NF-κB-driven chemokine genes CCL20 and KC, and lead to further increases in airways hyperresponsiveness. [3] In vivo: BEC hydrochloride increased contractility in isolated myocytes from WT and NOS3 but not NOS1 knockout mice. [4]

Solvent&Solubility

In Vitro:

H_2O : ≥ 35 mg/mL (152.51 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.3575 mL	21.7874 mL	43.5749 mL
	5 mM	0.8715 mL	4.3575 mL	8.7150 mL
	10 mM	0.4357 mL	2.1787 mL	4.3575 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。

References

[1]. Colleluori DM et al. Classical and slow-binding inhibitors of human type II arginase. Biochemistry. 2001 Aug 7;40(31):9356-62.

[2]. Kim NN et al. Probing erectile function: S-(2-boronoethyl)-L-cysteine binds to arginase as a transition state analogue and enhances smooth muscle relaxation in human penile corpus cavernosum. Biochemistry. 2001 Mar 6;40(9):2678-88.

[3]. Karina Ckless et al. Inhibition of Arginase Activity Enhances Inflammation in Mice with Allergic Airway Disease, in Association with Increases in Protein S-Nitrosylation and Tyrosine Nitration. J Immunol. Author manuscript; available in PMC 2010 Jun 28.

[4]. Steppan J et al. Arginase modulates myocardial contractility by a nitric oxide synthase 1-dependent mechanism. Proc Natl Acad Sci U S A. 2006 Mar 21;103(12):4759-64.