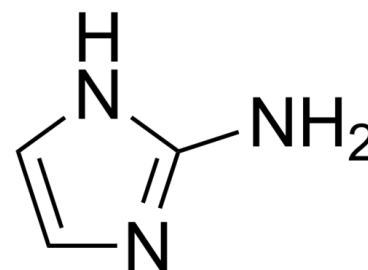


Data Sheet

Product Name:	2-Aminoimidazole
Cat. No.:	CS-0054070
CAS No.:	7720-39-0
Molecular Formula:	C ₃ H ₅ N ₃
Molecular Weight:	83.09
Target:	Arginase; Bacterial
Pathway:	Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease
Solubility:	DMSO : 50 mg/mL (601.76 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

2-Aminoimidazole is a potent antibiofilm agent that can be used as an adjuvant to antimicrobial. 2-aminoimidazoles disrupts the ability of bacteria to protect themselves by inhibiting biofilm formation and genetically-encoded antibiotic resistance traits. 2-Aminoimidazole is also a weak noncompetitive inhibitor of **human arginase I** with a **K_i** of 3.6 mM^{[1][2][3]}. IC₅₀ & Target: bacteria^[1]
K_i: 3.6 mM (human arginase I)^[3]

References:

- [1]. Thompson RJ, et, al. Identification of BfmR, a response regulator involved in biofilm development, as a target for a 2-Aminoimidazole-based antibiofilm agent. *Biochemistry*. 2012 Dec 11;51(49):9776-8.
- [2]. Jacobs L, et, al. 2-Aminoimidazoles as potent inhibitors of contaminating brewery biofilms. *Biofouling*. 2021 Feb 11;1-17.
- [3]. Ilies M, et, al. 2-aminoimidazole amino acids as inhibitors of the binuclear manganese metalloenzyme human arginase I. *J Med Chem*. 2010 May 27;53(10):4266-76.

CAIndexNames:

1H-Imidazol-2-amine

SMILES:

NC1=NC=CN1

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

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