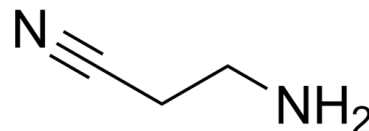


Data Sheet

Product Name:	β-Aminopropionitrile
Cat. No.:	CS-D1507
CAS No.:	151-18-8
Molecular Formula:	C ₃ H ₆ N ₂
Molecular Weight:	70.09
Target:	Endogenous Metabolite; Monoamine Oxidase
Pathway:	Metabolic Enzyme/Protease; Neuronal Signaling
Solubility:	H ₂ O : 50 mg/mL (713.37 mM; Need ultrasonic); DMSO : ≥ 100 mg/mL (1426.74 mM)



BIOLOGICAL ACTIVITY:

β-Aminopropionitrile (BAPN) is a specific, irreversible and orally active **lysyl oxidase (LOX)** inhibitor. β-Aminopropionitrile targets the active site of LOX or LOXL isoenzymes^{[1][2]}. *In Vitro*: β-Aminopropionitrile (BAPN) normalizes the expression of GLUT4 and adiponectin, and improves glucose uptake in an in vitro model of insulin resistance^[1].

β-Aminopropionitrile (500 μM; 72 h) blocks the hypoxia-induced EMT morphological and marker protein changes, and inhibits invasion and migration capacities of cervical carcinoma cells in vitro^[2]. *In Vivo*: β-Aminopropionitrile (BAPN) (100 mg/kg/day; p.o.; 6 weeks) reduces body weight gain and improves the metabolic profile in diet-induced obesity in rats^[1].

β-Aminopropionitrile monofumarate (1 g/kg/day; p.o.; 4 weeks) induces thoracic aortic dissection in C57BL/6 mice^[3].

References:

[1]. Miana M, et al. The lysyl oxidase inhibitor β-aminopropionitrile reduces body weight gain and improves the metabolic profile in diet-induced obesity in rats. *Dis Model Mech.* 2015 Jun;8(6):543-51.

[2]. Yang X, et al. Inactivation of lysyl oxidase by β-aminopropionitrile inhibits hypoxia-induced invasion and migration of cervical cancer cells. *Oncol Rep.* 2013 Feb;29(2):541-8.

[3]. Ren W, et al. β-Aminopropionitrile monofumarate induces thoracic aortic dissection in C57BL/6 mice. *Sci Rep.* 2016 Jun 22;6:28149.

CAIndexNames:

Propanenitrile, 3-amino-

SMILES:

N#CCCN

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

Tel: 610-426-3128

Fax: 888-484-5008

E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA