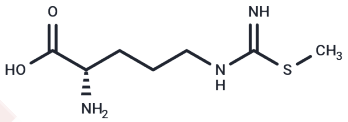
Data Sheet (Cat.No.T16830)

TargetMol

S-MTC

Chemical Properties



CAS No. : 156719-41-4

Formula: C7H15N3O2S

Molecular Weight: 205.28

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	S-MTC is a selective inhibitor of type I nitric oxide synthase.
Targets(IC50)	NOS,NO Synthase
In vitro	S-MTC (100?μM) is able to obviously reduce nitrite production (25.2±1.1?μM) as compared to Aβ1-42 treatment alone (38.3±2.7?μM) when administered after Aβ1-42 at the 1?h time point. S-MTC (10 or 100?μM) reduces cellular NO release in the absence of Aβ1-42. S-MTC (100?μM) reduces cell viability. Nitrite productions after Aβ1-42 and L-NOARG (100?μM) or Aβ1-42 and S-MTC (100?μM) treatments are significantly lower than Aβ1-42 alone (33.5±2.0 and 34.5±1.6?μM, respectively). S-MTC (100?μM) concentration decreases both MTT (87±1% of control) and NR (80±1% of control, respectively) levels [1].
In vivo	S-MTC is a selective neuronal NOS-inhibitor. The HBO2-induced antinociception is significantly antagonized following pretreatment with S-MTC (i.c.v.). At a dose of 0.3 mg/kg, S-MTC (SMTC) induces a rise in mean blood pressure (BP). At doses of 1.0, 3.0, and 10 mg/kg, S-MTC causes a fall in heart rate, rises in BP, and vasoconstriction in all three vascular beds [2][3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.8714 mL	24.357 mL	48.714 mL
5 mM	0.9743 mL	4.8714 mL	9.7428 mL
10 mM	0.4871 mL	2.4357 mL	4.8714 mL
50 mM	0.0974 mL	0.4871 mL	0.9743 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Law A, et al. Neuroprotective and neurorescuing effects of isoform-specific nitric oxide synthase inhibitors, nitric oxide scavenger, and antioxidant against beta-amyloid toxicity. Br J Pharmacol. 2001 Aug;133(7):1114-24.
Zelinski LM, et al. A prolonged nitric oxide-dependent, opioid-mediated antinociceptive effect of hyperbaric oxygenin mice. J Pain. 2009 Feb;10(2):167-72.
Wakefield ID, et al. Comparative regional haemodynamic effects of the nitric oxide synthase inhibitors, S-methyl-L-thiocitrulline and L-NAME, in conscious rats. Br J Pharmacol. 2003 Jul;139(6):1235-43.

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