Product Data Sheet

Product Name: 2-Imino-4-methylpiperidine (acetate)
Cat. No.: GC17084

Chemical Properties

Cas. No.	165383-72-2		
Chemical Name	3,4,5,6-tetrahydro-4-methyl-2-pyridinamine, acetate		
SMILES	CC1CCN=C(N)C1.CC([O-])=O		
Formula	$C_6H_{12}N_2 \cdot C_2H_3O_2$	M.Wt	171.2
Solubility	≤5mg/ml in ethanol;5mg/ml in DMSO;5mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

2-Imino-4-methylpiperidine (acetate) is a potent NOS inhibitor [1]

Nitric oxide (NO) is an endogenously produced inorganic free radical gas which has been implicated in endothelium-dependent vascular relaxation, cell-to-cell communication, and cytotoxicity associated with phagocytic cells. NO is synthesized by three isoforms of nitric oxide synthase (NOS): nNOS, eNOS and iNOS [1].

2-Imino-4-methylpiperidine (acetate) is a 2-iminopiperidine class of NOS inhibitor. In the presence of a final L-arginine concentration of 30 μM, 2-Imino-4-methylpiperidine inhibited human iNOS, eNOS, and nNOS with IC50 values of 0.1, 1.1, and 0.2 μM, respectively. 2-Imino-4-methylpiperidine exhibited 9-fold and 1-fold selectivity for iNOS compared to eNOS and nNOS, respectively [1].

In LPS-treated rats, 2-Imino-4-methylpiperidine (10 mg/kg, po) inhibited plasma nitrite

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levels by 87%.

Reference:

[1]. Webber RK, Metz S, Moore WM, et al. Substituted 2-iminopiperidines as inhibitors of human nitric oxide synthase isoforms. J Med Chem. 1998 Jan 1;41(1):96-101.