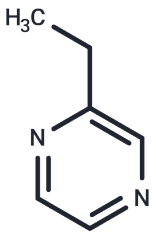
Data Sheet (Cat.No.T38248)

TargetMol

2-Ethylpyrazine

Chemical Properties



CAS No. : 13925-00-3

Formula: C6H8N2

Molecular Weight: 108.14

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

Biological Description

Description	2-Ethylpyrazine is present in roasted coffee beans and is a volatile compound .2-Ethylpyrazine induces vasodilation through the activity of endothelium-derived relaxing factors.2-Ethylpyrazine activates NO synthesis through the action of endothelial endothelial NO synthase.2-Ethylpyrazine induces vasodilation by inducing NO release and increasing peripheral blood flow to induce vasodilation.
Targets(IC50)	Endogenous Metabolite,NO Synthase
In vitro	2-ethylpyrazine (2-EP) (100μM or 1 mM) induces vasodilatation through the activities of endothelium-derived relaxing factors. 2-EP activates NO synthesis through the effect of endothelial NO synthase in the endothelium. As a result, cyclic GMP levels rise in smooth muscle cells and vasodilatation is induced.[1]
In vivo	2-ethylpyrazine (2-EP) (10, 100 μg/kg; injected; Wistar rats) increases peripheral blood flow in rats.[1]

Solubility Information

Solubility	DMSO: 90 mg/mL (832.25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (30.52 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	9.2473 mL	46.2364 mL	92.4727 mL
5 mM	1.8495 mL	9.2473 mL	18.4945 mL
10 mM	0.9247 mL	4.6236 mL	9.2473 mL
50 mM	0.1849 mL	0.9247 mL	1.8495 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

Ashigai H, et al. 2-Ethylpyrazine Induces Vasodilatation by Releasing Nitric Oxide in the Endothelium. Biol Pharm Bull. 2017;40(12):2153-2157.