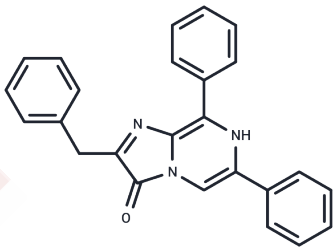
Data Sheet (Cat.No.T18978)

TargetMol

Diphenylterazine

Chemical Properties



CAS No. : 344940-63-2

Formula: C25H19N3O

Molecular Weight: 377.44

Storage: Keep away from direct sunlight
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	Diphenylterazine (DTZ) is a bioluminescent agent. It produces very little background of its own, giving it an excellent signal-to-noise ratio.
Targets(IC50)	Others
In vitro	Diphenylterazine alone yields very little background with excellent signal-to-background ratios. Furthermore, Diphenylterazine elicits minimal cell toxicity at millimolar concentrations. Diphenylterazine injections into untransfected BALB/c mice do not yield any background emission.
Animal Research	I. Solution preparation 1. Preparation of mother solution: Dissolve DTZ in DMSO or ethanol to prepare a 1-10 mM mother solution; (It is recommended to store at -20 ℃ or -80 ℃ in the dark after aliquoting) 2. Preparation of working solution: Dilute the DTZ mother solution with PBS or other suitable buffer, usually 1-10 μM; (Select the appropriate working solution concentration according to the experimental requirements, and prepare it for immediate use) Imaging analysis experiment of Staphylococcus aureus reporter strain colonization in deep tissues of mice Operation steps: 24 hours after infection with CFU reporter strain, 1 μmol Diphenylterazine was injected intraperitoneally into the abdominal cavity of infected mice, and the mice were placed in a small animal in vivo imager to anesthetize them. After 3 minutes, the luminescent signal of the dorsal kidney of the mice was detected using the IVIS® Lumina LT system. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 55 mg/mL (145.72 mM),DMSO inactivates the activity of Diphenylterazine. EtOH+HCl: 1 mg/mL (2.65 mM),when pH is adjusted to 2 with 1 M HCl. Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6494 mL	13.2471 mL	26.4943 mL
5 mM	0.5299 mL	2.6494 mL	5.2989 mL
10 mM	0.2649 mL	1.3247 mL	2.6494 mL
50 mM	0.053 mL	0.2649 mL	0.5299 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

HU Z, et al.Construction of Staphylococcus aureus bioluminescence system and its preliminary application in tracking bacterial infections2.2023.

Wu S, Xu J, Chen W, et al.Protein Nanoscaffold Enables Programmable Nanobody-Luciferase Immunoassembly for Sensitive and Simultaneous Detection of Aflatoxin B1 and Ochratoxin A.Journal of Hazardous Materials.2023: 132701.