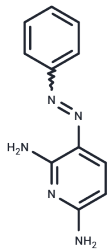
Data Sheet (Cat.No.T60260)

TargetMol

Phenazopyridine

Chemical Properties



CAS No. : 94-78-0

Formula: C11H11N5

Molecular Weight: 213.24

Storage: Store at low temperature
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	Phenazopyridine is an orally administered azo dye with local analgesic effects on urinary tract infections, causing urine to turn orange to red. Phenazopyridine exhibits micromolar-level inhibitory activity against SARM1 and TRPM8.
Targets(IC50)	TRP/TRPV Channel
In vitro	**Method**: Human SH-SY5Y cells and mouse N2a cells were treated with Phenazopyridine at concentrations of 10-30 μM for 12 hours. **Result**: Phenazopyridine treatment significantly increased the expression levels of RPS23RG1 mRNA in both cell types.[2]
In vivo	**Method**: In APP/PS1 Alzheimer's disease (AD) mice, Phenazopyridine was administered at a dose of 15 mg/kg via intracerebroventricular injection once daily for 2 consecutive weeks. **Result**: Phenazopyridine improved certain AD-related cognitive impairments and pathological features in APP/PS1 mice by promoting the expression of Rps23rg1.[2]

Solubility Information

Solubility	DMSO: 12.5 mg/mL (58.62 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6896 mL	23.4478 mL	46.8955 mL
5 mM	0.9379 mL	4.6896 mL	9.3791 mL
10 mM	0.469 mL	2.3448 mL	4.6896 mL
50 mM	0.0938 mL	0.469 mL	0.9379 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

Loring H S, et al. Identification of the first noncompetitive SARM1 inhibitors[J]. Bioorganic & Medicinal Chemistry, 2020, 28(18): 115644.
Wang C, et al. Phenazopyridine promotes RPS23RG1/Rps23rg1 transcription and ameliorates Alzheimer-associated phenotypes in mice[J]. Neuropsychopharmacology, 2022, 47(12): 2042-2050.
Aizawa N, et al. Effects of phenazopyridine on rat bladder primary afferent activity, and comparison with lidocaine and acetaminophen[J]. Neurourology and Urodynamics, 2010, 29(8): 1445-1450.
Luyts N, et al. Inhibition of TRPM8 by the urinary tract analgesic drug phenazopyridine[J]. European Journal of Pharmacology, 2023, 942: 175512.