

p-Toluic Acid

Chemical Properties

CAS No.:	99-94-5
Formula:	C ₈ H ₈ O ₂
Molecular Weight:	136.15
Appearance:	White to slightly yellow-cream Powder
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	p-Toluic Acid belongs to the class of organic compounds known as benzoic acids. 4-Methylbenzoic acid has been primarily detected in saliva. Within the cell, 4-methylbenzoic acid is primarily located in the cytoplasm.
Targets(IC ₅₀)	Others: None
In vivo	Daily administration of 4-methylbenzoic acid in male and female Sprague-Dawley rats. 1,000 mg/kg/day of the compound reduced epididymal weights and increased incidence of cauda epididymal oligo/azoospermia. While the compound did not affect estrous cycle or mating performances, 1,000 mg/kg of the compound reduced fertility. Furthermore, 300 mg/kg or more of the compound increased pre-implantation loss, which resulted in a decrease in the number of offspring, and reduced body weight gain of the dams during the latter period of gestation.

Solubility Information

Solubility	DMSO: 10 mM (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.345 mL	36.724 mL	73.448 mL
5 mM	1.469 mL	7.345 mL	14.69 mL
10 mM	0.734 mL	3.672 mL	7.345 mL
50 mM	0.147 mL	0.734 mL	1.469 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Shirota M , Seki T , Tago K , et al. Screening of toxicological properties of 4-methylbenzoic acid by oral administration to rats.[J]. Journal of Toxicological ences, 2008, 33(4):431 -445.

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