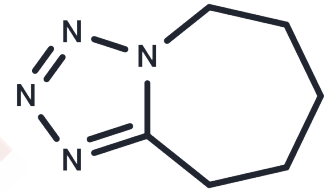


Pentetrazol

Chemical Properties

CAS No. :	54-95-5
Formula:	C ₆ H ₁₀ N ₄
Molecular Weight:	138.17
Storage:	Store at low temperature, Store under nitrogen Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Pentetenetetrazol is a GABA(A) receptor antagonist, that displays activity as a central nervous system and respiratory stimulant.
Targets(IC50)	GABA Receptor
In vivo	Administration of PTZ (45 mg/kg i.p.) induces clonic convulsions in almost all of the animals after a single injection, typically within 3 min. However, 11% of animals need a second injection to cause clonus. Each rat shows jerking or myoclonus followed by clonus or tonic-clonic convulsions. PTZ injection results in significant changes in GABAA receptor subunit mRNAs. A single PTZ-induced convulsion is associated with rapid changes in GABAA receptors[1].
Cell Research	Primary cortical neurons are obtained from E16 mice embryos and planted in poly-L-lysine and Laminin coated culturing ware in neurobasal medium with 2% B-27 supplement, 0.5% GlutaMAX-ITM supplement, and 1% penicillin-streptomycin. The culture medium is half replaced every 3 days. The primary cells are cultured for 7 days in vitro (DIV) prior to treating them with isometric fresh medium, PTZ (30 mM), and PTZ (30 mM) + OtoN of different dosages.(Only for Reference)

Solubility Information

Solubility	DMSO: 20 mg/mL (144.75 mM),Sonication is recommended. H ₂ O: 10 mg/mL (72.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.2375 mL	36.1873 mL	72.3746 mL
5 mM	1.4475 mL	7.2375 mL	14.4749 mL
10 mM	0.7237 mL	3.6187 mL	7.2375 mL
50 mM	0.1447 mL	0.7237 mL	1.4475 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

Walsh LA, et al. J Pharmacol Exp Ther. 1999, 289(3):1626-1633.

Sheng F, et al. Front Pharmacol. 2016, 7:224.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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