Product Data Sheet

Product Name: Tetrazole
Cat. No.: GA10041

Chemical Properties

Cas. No.	288-94-8		
Chemical Name	2H-tetrazole		
SMILES	C1=NNN=N1		
Formula	CH_2N_4	M.Wt	70.1
Solubility		Storage	Store at RT
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Tetrazole		

Background

IC50: Not available.

Tetrazole is the simplest compound belonging to tetrazoles family, a class of synthetic organic heterocyclic compound consists of a 5-member ring of four nitrogen and one carbon atom. Tetrazoles have commonly been believed to have similar properties to carboxylic acids, and therefore make themselves excellent bioisosteres. Moreover, several pharmaceutical agents, for instance, losartan and candesartan (Angiotensin II receptor blockers), are considered as tetrazoles. Tetrazoles are often adopted in medicinal chemistry as a substitute for carboxylic acids because they share very similar proton dissociation properties. [1]

In vitro: The acidity constant of tetrazole was detected and reported as 4.9. Four of the six angiotension II receptor antagonists clinically effective for treating hypertension contained a tetrazole. MTT, dimethyl thiazolyl diphenyl tetrazolium bromide, was regarded as a well-known tetrazole applied to quantify the respiratory activity of live

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cells. Some tetrazoles could also be used in DNA assays. [2]

In vivo: So far, no in vivo data has been reported.

Clinical trial: So far, no clinical trial has been conducted.

References:
[1]Berner S, Mühlegger K and Seliger H. Studies on the role of tetrazole in the activation of phosphoramidites. Nucleic Acids Res. 1989 Feb; 17 (3): 853–864
[2]Satchell JF and Smith BJ. Calculation of aqueous dissociation constants of 1,2,4-triazole and tetrazole: A comparison of solvation modelsy. Phys Chem Chem Phys. 2002; 4: 4314-8.