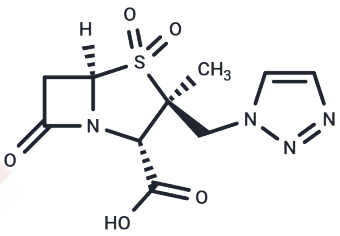
Data Sheet (Cat.No.T1262)

TargetMol

Tazobactam

Chemical Properties



CAS No. : 89786-04-9

Formula: C10H12N4O5S

Molecular Weight: 300.29

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	Tazobactam (YTR-830H) is an antibacterial penicillin derivative which inhibits the action of bacterial beta-lactamases.
Targets(IC50)	Antibacterial,Antibiotic
In vivo	Propylthiouracil-induced hypothyroidism reduces oxidative damage in the lung, hepatic, renal and ileal tissues probably due to hypometabolism in rats, which is associated with decreased production of reactive oxygen metabolites and enhancement of antioxidant mechanisms. [1] Propylthiouracil-induced congenital hypothyroidism upregulates vimentin phosphorylation and depletes antioxidant defenses in immature rat testis. [2] Propylthiouracil results in lesser concentrations of thyroxine (T4) and triiodothyronine (T3), greater concentrations of follicle stimulating hormone (FSH) and luteinizing hormone (LH) peptides, and increase in steroidogenic gene expression after 12 hours and 48 hours in zebrafish. [3]Propylthiouracil-induced hypothyroidism is associated with increased tolerance of the isolated rat heart toischaemia-reperfusion. [4] Propylthiouracil (PTU) dramatically reduces thyroid hormones on PND21 and produced deficits in body weight that persisted to adulthood in developing rats. [5] Propylthiouracil inhibits both the synthesis of thyroid hormones in the thyroid gland and the conversion of T4 to its active form, T3. Propylthiouracil treatment significantly increases circulating TSH at both P3 and P7. Propylthiouracil exposure of adult rats, at a dose inducing modest reductions in circulating T4 concentrations and no significant effect on brain BDNF, significantly alteres the thyroid hormones and hippocampal BDNF levels in the offspring at 3 and 7 d after birth. [6]

Solubility Information

Solubility	DMSO: 55 mg/mL (183.16 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.66 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and*

In vivo Formulation	*used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3301 mL	16.6506 mL	33.3011 mL
5 mM	0.666 mL	3.3301 mL	6.6602 mL
10 mM	0.333 mL	1.6651 mL	3.3301 mL
50 mM	0.0666 mL	0.333 mL	0.666 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

Overington JP, et al. Nat Rev Drug Discov. 2006 Dec;5(12):993-6.