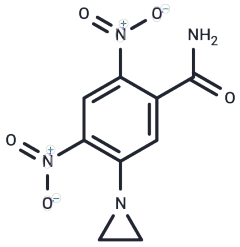
Data Sheet (Cat.No.T6798)

TargetMol

Tretazicar

Chemical Properties



CAS No. : 21919-05-1

Formula: C9H8N4O5

Molecular Weight: 252.18

Storage: 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	CB1954(Tretazicar (NSC-115829)), an anticancer prodrug, is activated by NAD(P)H quinone oxidoreductase 2. It is converted in the presence of the enzyme NQO2 and co-substrate caricotamide (EP-0152R) (EP) into a potent cytotoxic bifunctional alkylating agent.
Targets(IC50)	Reductase,DNA Alkylation,DNA Alkylator/Crosslinker
In vitro	In the NPC cell line CNE1, toxic Tretazicar enhances cells killing. The overexpression of nitroreductase oxidored nitro domain-containing protein 1 (NOR1) reduce the 4 nitro group of Tretazicar, a potent cytotoxin, in order to convert the monofunctional alkylating agent Tretazicar into a toxic form. In the HepG2 cell line, the NOR1 gene upregulates of Grb2 expression and activates of MAPK signal transduction leading to enhances Tretazicar mediated cell cytotoxicity.
In vivo	The NTR/CB1954 system, which is in a dose-dependent effect, are used for specific ablation of cells in vivo. NTR-mediated cell killing by CB1954, which is activated cross-links, presumed through triggers the apoptosis cascade resulting in rapid cell death. Selective and potent cells killing by NTR-CB1954 does not require a functional p53.
Cell Research	HepG2 cells,which are maintained in RPMI 1640 supplemented with 10% fetal calf serum (FCS) in a humidified culture incubator at 37?C with 5% CO2 and 95% air, grow to ~80% confluence are washed with PBS and treated with r CB1954(4-10 μmol/L) for 48hours.
Animal Research	RED 40 female mice,which express high levels of BLG-NTR transgene in the mammary gland and nontransgenic control mice on lactation day 6, were injected intraperitoneally (i.p.) with 50 mg/kg CB1954 dissolved in arachis oil containing 10%

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 47 mg/mL (186.37 mM),Sonication is recommended. (< 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 (7.93 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	3.9654 mL	19.8271 mL	39.6542 mL
5 mM	0.7931 mL	3.9654 mL	7.9308 mL
10 mM	0.3965 mL	1.9827 mL	3.9654 mL
50 mM	0.0793 mL	0.3965 mL	0.7931 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

Gui R, et al. Oncol Lett. 2012, 4(3):566-570.
Cui W, et al. Gene Ther. 1999, 6(5):764-770.
Felmer R, et al. J Endocrinol. 2002, 175(2):487-98.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481