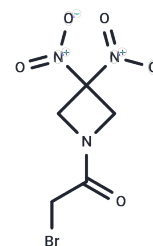


RRX-001

Chemical Properties

CAS No. : 925206-65-1
 Formula: C₅H₆BrN₃O₅
 Molecular Weight: 268.02
 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	RRx-001 is a potent inhibitor of glucose 6-phosphate dehydrogenase (G6PD) and with potent antimalarial activity
Targets (IC ₅₀)	Apoptosis, Parasite, Dehydrogenase
In vitro	RRx-001 inhibited the growth of colon cancer cells (HCT 116) and decreased levels of the DNA methyltransferases DNMT1 and DNMT3a in a time and dose-dependent manner. Treatment of HCT 116 cells with 0.5 μM RRx-001 for 24 h significantly increased transcripts of interferon (IFN)-responsive genes and this induction was sustained for up to 4 weeks after transient exposure to RRx-001. RRx-001 increased secretion of type I and III IFNs by HCT 116 cells, and these IFNs were confirmed to be bioactive. Transcription of endogenous retrovirus ERV-Fc2 and LTRs from the ERV-L family (MLT2B4 and MLT1C49) was induced by RRx-001[1].

Solubility Information

Solubility	DMSO: 250 mg/mL (932.77 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: 5 mg/mL (18.66 mM), Sonication is recommended. <i>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 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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7311 mL	18.6553 mL	37.3106 mL
5 mM	0.7462 mL	3.7311 mL	7.4621 mL
10 mM	0.3731 mL	1.8655 mL	3.7311 mL
50 mM	0.0746 mL	0.3731 mL	0.7462 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

Zhao H , Ning S , Nolley R , et al. The immunomodulatory anticancer agent, RRx-001 , induces an interferon response through epigenetic induction of viral mimicry[J]. *Clinical Epigenetics*, 2017, 9(1):4.

Gong M, Huang Y, Feng H, et al. A nanodrug combining CD47 and sonodynamic therapy efficiently inhibits osteosarcoma deterioration. *Journal of Controlled Release*. 2023, 355: 68-84.

Oronsky B , Paulmurugan R , Foygel K , et al. RRx-001: a systemically non-toxic M2-to-M1 macrophage stimulating and prosensitizing agent in Phase II clinical trials[J]. *Expert Opinion on Investigational Drugs*, 2017, 26(1):109-119.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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