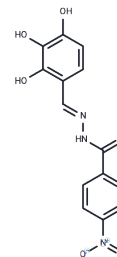


## Benitrobenrazide

## Chemical Properties

CAS No. :	2454676-05-0
Formula:	C <sub>14</sub> H <sub>11</sub> N <sub>3</sub> O <sub>6</sub>
Molecular Weight:	317.25
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	Benitrobenrazide (Hexokinase 2 inhibitor 1) is a hexokinase 2 inhibitor with anticancer and antitumor activity. Benitrobenrazide inhibits the growth of tumors and can be used in cancer research.
Targets(IC50)	Apoptosis, Hexokinase

## Solubility Information

Solubility	DMSO: 250 mg/mL (788.02 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: $< 10$ mg/mL (31.52 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: $< 10$ mg/mL (31.52 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn oil: $< 10$ mg/mL (31.52 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% (20% SBE- $\beta$ -CD in Saline): $< 10$ mg/mL (31.52 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. <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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.1521 mL	15.7604 mL	31.5209 mL
5 mM	0.6304 mL	3.1521 mL	6.3042 mL
10 mM	0.3152 mL	1.576 mL	3.1521 mL
50 mM	0.063 mL	0.3152 mL	0.6304 mL

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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

Juszczak K, et al. Hexokinase 2 Inhibition and Biological Effects of BNBZ and Its Derivatives: The Influence of the Number and Arrangement of Hydroxyl Groups. *Int J Mol Sci.* 2022 Feb 27;23(5):2616.

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