

## MIR96-IN-1

## Chemical Properties

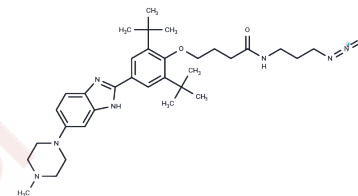
CAS No. : 1311982-88-3

Formula: C33H48N8O2

Molecular Weight: 588.79

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	MIR96-IN-1 selectively inhibits biogenesis of microRNA-96, upregulating a protein target (FOXO1) and inducing apoptosis in cancer cells.
Targets(IC50)	Apoptosis,MALT,MicroRNA
In vitro	MIR96-IN-1 inhibits Drosha cleavage of pri-miR-96, as evidenced by an increase in the levels of pri-miR-96 and a reduction in levels of pre- and mature miR-96 in treated cells, as expected if MIR96-IN-1 binds to the Drosha site. MIR96-IN-1 efficiently and selectively silences production of miR-96 at 40 $\mu$ M while not affecting miR-182 or -183. MIR96-IN-1 inhibits biogenesis of its target precursor miRNA to varying extents: MIR96-IN-1 reduces the expression level of miR-96 by 90% at 40 $\mu$ M [1].

## Solubility Information

Solubility	DMSO: 100 mg/mL (169.84 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: 3.3 mg/mL (5.6 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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.6984 mL	8.492 mL	16.984 mL
5 mM	0.3397 mL	1.6984 mL	3.3968 mL
10 mM	0.1698 mL	0.8492 mL	1.6984 mL
50 mM	0.034 mL	0.1698 mL	0.3397 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

Velagapudi SP, et al. Sequence-based design of bioactive small molecules that target precursor microRNAs. *Nat Chem Biol.* 2014 Apr;10(4):291-7.

Haga CL, et al. Small Molecule Inhibition of miR-544 Biogenesis Disrupts Adaptive Responses to Hypoxia by Modulating ATM-mTOR Signaling. *ACS Chem Biol.* 2015 Oct 16;10(10):2267-76.

Velagapudi SP, et al. Defining the RNA internal loops preferred by benzimidazole derivatives via 2D combinatorial screening and computational analysis. *J Am Chem Soc.* 2011 Jul 6;133(26):10111-8.

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