

Product Data Sheet

Product Name: MIR96-IN-1

Cat. No.: GC32929

Chemical Properties

Cas. No. 1311982-88-3

SMILES O=C(NCCCN=[N+]=[N-])CCCOCC1=C(C(C)(C)C)C=C(C2=NC3=CC=C(N4CCN(C)CC4)C=C3N2)C=C1C(C)(C)C

Formula $C_{33}H_{48}N_8O_2$ M.Wt 588.79

Solubility DMSO : ≥ 100 mg/mL (169.84 mM); Water : < 0.1 mg/mL (insoluble) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

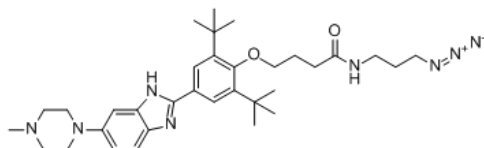
Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Structure



Background

MIR96-IN-1 selectively inhibits biogenesis of microRNA-96, upregulating a protein target (FOXO1) and inducing apoptosis in cancer cells. Target: microRNA-96 in vitro: 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 μ M. MIR96-IN-1 efficiently and selectively silences production of miR-96 at 40 μ M while not affecting miR-182 or -183. Moreover, 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. [1]

[1]. Velagapudi SP, et al. Sequence-based design of bioactive small molecules that target precursor microRNAs. Nat Chem Biol. 2014 Apr;10(4):291-7. [2]. 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. [3]. Velagapudi SP, et al. Defining the RNA internal

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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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