

Product Data Sheet

Product Name: UNC10217938A

Cat. No.: GC39638

Chemical Properties

Cas. No. 1347749-97-6

SMILES O=C(OCC)NC1=CC(NCCN(C)C)=C2C(N=C(C3=CC=CC=C3)C(C4=CC=CC=C4)=N2)=N1

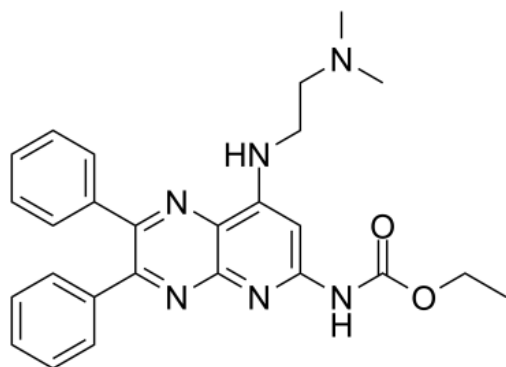
Formula $C_{26}H_{28}N_6O_2$ M.Wt 456.54

Solubility DMSO: 10 mg/mL (21.90 mM); ultrasonic and warming and heat to 80°C) 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.

Structure



Background

UNC10217938A is a 3-deazapteridine analog that is effective in enhancing the actions of oligonucleotides with low cytotoxicity [1]. UNC10217938A markedly promotes the activity of ASOs, siRNAs, and splice-switching oligonucleotides by permeabilizing endosomes and lysosomes [2].

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

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UNC10217938A can enhance the endosome escape of the cell-penetrating peptide containing Cre recombination protein (TATCre) and improve the functional delivery of TATCre to target cells^[3]. UNC10217938A has been widely used as an oligonucleotide enhancer compound (OEC) to enhance the cellular permeability of drug-like oligonucleotides^[4].

References:

- [1] Yang B, Ming X, Cao C, et al. High-throughput screening identifies small molecules that enhance the pharmacological effects of oligonucleotides[J]. Nucleic acids research, 2015, 43(4): 1987-1996.
- [2] Finicle B T, Eckenstein K H, Revenko A S, et al. Simultaneous inhibition of endocytic recycling and lysosomal fusion sensitizes cells and tissues to oligonucleotide therapeutics[J]. Nucleic Acids Research, 2023, 51(4): 1583-1599.
- [3] Heath N, Osteikoetxea X, de Oliveria T M, et al. Endosomal escape enhancing compounds facilitate functional delivery of extracellular vesicle cargo[J]. Nanomedicine, 2019, 14(21): 2799-2814.
- [4] Batistatou N, Kritzer J A. Comparing cell penetration of biotherapeutics across human cell lines[J]. ACS chemical biology, 2024, 19(6): 1351-1365.

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