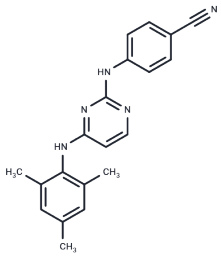
Data Sheet (Cat.No.T1815)

TargetMol

Dapivirine

Chemical Properties



CAS No. : 244767-67-7

Formula: C20H19N5

Molecular Weight: 329.4

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	Dapivirine (R147681) is a diarylpyrimidine non-nucleoside reverse transcriptase inhibitor.
Targets(IC50)	Apoptosis,HIV Protease,Reverse Transcriptase,Autophagy
In vivo	Dapivirine-containing gel at vaginal level inhibits cell-associated HIV infection in mice. [3] More placebo (7 of 12) than Dapivirine (3 of 24) gel users has positive vaginal swab results, with white blood cells being the most common finding. Dapivirine (0.05%) results in Cmax of 715 pg/mL, AUC of 15 ng×h/mL and T1/2 of 89.87 hours in plasma after 14 days post-dose. Mean Dapivirine (0.05%) concentrations in vaginal fluids collected at the introitus, mid vagina, and cervix are in the range of 62-265 μg/g on day 1. [4]

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 32 mg/mL (97.15 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (6.07 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0358 mL	15.1791 mL	30.3582 mL
5 mM	0.6072 mL	3.0358 mL	6.0716 mL
10 mM	0.3036 mL	1.5179 mL	3.0358 mL
50 mM	0.0607 mL	0.3036 mL	0.6072 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

Van Herrewege Y, et al. Antimicrob Agents Chemother, 2004, 48(1), 337-339.
Tan S, Li J Q, Cheng H, et al. The anti-parasitic drug suramin potently inhibits formation of seminal amyloid fibrils and their interaction with HIV-1. Journal of Biological Chemistry. 2019: jbc. RA118. 006797
Fletcher P, et al. Antimicrob Agents Chemother, 2009, 53(2), 487-495.
Di Fabio S, et al. AIDS, 2003, 17(11), 1597-1604.
Nel AM, et al. J Acquir Immune Defic Syndr, 2010, 55(2), 161-169.
Tan S, Li J Q, Cheng H, et al. The anti-parasitic drug suramin potently inhibits formation of seminal amyloid fibrils and their interaction with HIV-1[J]. Journal of Biological Chemistry. 2019: jbc. RA118. 006797.