

Catalog Number: CM04755

产品信息

Catalog Number:
CM04755

CAS号:
2635324-86-4

分子式:
C₁₃H₁₉N₃O₇

主要靶点:
Influenza Virus

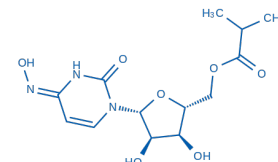
主要通路:
Anti-infection

分子量:
329.3059

MDL NO:

溶解度:

DMSO	63 mg/mL
Ethanol	22 mg/mL



描述

Coronaviruses (CoVs) traffic frequently between species resulting in novel disease outbreaks, most recently exemplified by the newly emerged SARS-CoV-2, the causative agent of COVID-19. EIDD-2801, an orally bioavailable prodrug of NHC (β -D-N⁴-hydroxycytidine-5'-isopropyl ester), has broad spectrum antiviral activity against influenza virus and multiple coronaviruses, such as SARS-CoV-2, MERS-CoV, SARS-CoV. Beginning on 3 days post-infection (dpi), body weight loss compared to vehicle treatment was significantly diminished (50 mg/kg) or prevented (150, 500 mg/kg) with EIDD-2801 prophylaxis in C57BL/6 mice. Lung hemorrhage was also significantly reduced 5 dpi with 500 mg/kg EIDD-2801 treatment. Interestingly, there was a dose-dependent reduction in SARS-CoV lung titer with significant differences among the vehicle, 150 mg/kg (P = 0.03) and 500 mg/kg (P = 0.006) groups suggesting that prophylactic orally administered EIDD-2801 was robustly antiviral and able to prevent SARS-CoV replication and disease. Similar to SARS-CoV data, all doses of prophylactic EIDD-2801 (50, 150 and 500 mg/kg) protected hDPP4 288/330 mice from significant body weight loss, lung hemorrhage, and virus replication which was undetectable regardless of drug dose following intranasal infection with 5E+04 PFU mouse-adapted MERS-CoV. Interestingly, when viral genomic RNA was quantified in paired samples of lung tissue, EIDD-2801 significantly reduced quantities of viral RNA in an initiation time-dependent manner for all groups except for +48 hours. Collectively, EIDD-2801 robustly reduces MERS-CoV infectious titers, viral RNA, and pathogenesis under both prophylactic and early therapeutic conditions. Lastly, the EIDD-2801 dose-dependent mutagenesis of viral RNA correlated with an increase in codon change frequency, including stop codons, in mice where treatment was initiated 12 hours or before^[1].

储存

储存条件:

粉末	-20°C	3年
液体	-80°C	1年

运输条件:

Shipped in cold pack

参考文献

- 1 Sheahan TP, Sims AC, Zhou S, et al. An orally bioavailable broad-spectrum antiviral inhibits SARS-CoV-2 in human airway epithelial cell cultures and multiple coronaviruses in mice. *Sci Transl Med*. 2020;12(541):eabb5883
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