For Research Use Only

NM107

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Catalog Number: CM04379

产品信息

Catalog Number:
CM04379

CAS号:
20724-73-6

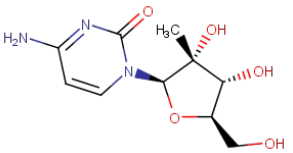
分子式:
$C_{10}H_{15}N_3O_5$

主要靶点:
HCV Protease

主要通路:
蛋白酶体|微生物学

分子量:
257.24

溶解度:
H2O:50 mg/mL (194.37 mM)



体外活性

NM107 reduces the number of viral plaques in BHK-21 cells infected with dengue type 2, reovirus type 1, West Nile, and yellow fever RNA viruses with EC50 values of 95, 26, 80, and 75 μM, respectively. NM107 inhibits hepatitis C virus (HCV) replication (EC50 = 2.2 μM in a replicon assay) and protects MDBK cells from infection with bovine virus diarrhea virus (BVDV; EC50 = 2.2 μM) and human corona virus (HCoV; EC50 = 90 μM). It also reduces infectious virus yield in BHK-21 cells infected with foot-and-mouth disease virus (FMDV; EC50 = 6.4 μM) and swine vesicular disease virus (SVDV; EC50 = 45.2 μM)[1].

体内活性

Prolonged norovirus shedding may occur in certain patients, such as organ transplant recipients. Established a mouse model for persistent norovirus infection (using the mouse norovirus MNV.CR6 strain). The nucleoside viral polymerase inhibitor 2′-C-methylcytidine (2CMC), but not favipiravir (T-705), reduced viral shedding to undetectable levels. Viral rebound was observed after stopping treatment, which was again effectively controlled by treatment with 2CMC. No drug-resistant variants emerged[2].

动物实验

For all experiments, age- and sex-matched mice 8 to 12 weeks of age were infected by oral gavage with 10^6 CCID50 (50% cell culture infective doses) of CR6. At 7 days postinfection (p.i.), mice were left untreated (n = 9) or were treated with 100 mg/kg daily of 2'-C-Methylcytidine(2CMC) subcutaneously for 5 (n = 4), 7 (n = 4), or 11 (n = 4) days. Two more rounds of a 14-day treatment (with an ~4-week interval in between) with 2CMC (n = 10) or favipiravir (200 mg/kg daily by oral gavage [n = 5]) were given. On each day after infection, the general condition and weight of treated and untreated mice were assessed, individual stool samples were collected (whenever possible during one daily period of observation), and levels of MNV RNA were quantified by reverse transcriptase quantitative PCR (RT-qPCR)[2].

储存

Powder: -20°C for 3 years | In solvent: -80°C for 1 year | Shipping with blue ice.