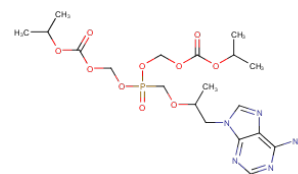


Catalog Number: CM00696

产品信息

Catalog Number:
CM00696CAS号:
201341-05-1分子式:
C₁₉H₃₀N₅O₁₀P主要靶点:
HIV Protease|HBV|Reverse
Transcriptase主要通路:
微生物学|蛋白酶体分子量:
519.44溶解度:
DMSO:38 mg/mL (73.16 mM)

体外活性

Human renal proximal tubular epithelial cell line (HK-2) cells were grown for 48 h followed by 24 to 72 h exposure to 0-28.8 μ M TFV or vehicle, phosphate buffered saline (PBS). MTT (MTT, 3-(4,5-dimethylthiazol-2-yl)-2,5-Diphenyltetrazolium Bromide) and Trypan blue indicated that TFV diminished cell viability at 24-72 h. TFV decreased ATP levels at 72 h when compared to vehicle, reflecting mitochondrial dysfunction. TFV increased the oxidative stress biomarkers of protein carbonylation and 4-hydroxynonenol (4-HNE) adduct formation. Tumor necrosis factor alpha (TNF α) was released into the media following exposure to 14.5 and 28.8 μ M TFV. Caspase 3 and 9 cleavage was induced by TFV compared to vehicle at 72 h. HK-2 cells are a sensitive model for TFV cytotoxicity and suggest that mitochondrial stress and apoptosis occur in HK-2 cells treated with TFV[1].

细胞实验

Human immortalized epithelial HK-2 cells were grown in a keratinocyte-free media with 50 μ g/mL bovine pituitary extract and 5 ng/mL recombinant epithelial growth factor from Invitrogen. Cells were grown in a warm humidified incubator with constant settings of 37 °C and 5% CO₂. HK-2 cells were plated into six-well tissue culture plates (750,000 cells/mL) and allowed to grow for 48 h. Media was replaced and cells were treated with a final concentration of 0, 1.5, 3.0, 4.75, 14.5, or 28.8 μ M TFV for 24, 48, or 72 h. The vehicle was an equal volume of phosphate buffered saline (PBS). Abacavir was prepared in sterile water and cells were treated for 24 h with 0, 1.5, 3 or 6 μ M of abacavir to evaluate renal sensitivity to an agent recognized to be less nephrotoxic. Following the treatment period, cells were collected with Trypsin-EDTA (0.25%) for sample analysis[1].

描述

Tenofovir Disoproxil is a nucleotide reverse transcriptase inhibitor to treat HIV and chronic Hepatitis B.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years