

Elvitegravir

Catalog No: tcsc0439



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

697761-98-1

Formula:

$C_{23}H_{23}ClFNO_5$

Pathway:

Metabolic Enzyme/Protease;Anti-infection

Target:

HIV Integrase;HIV

Purity / Grade:

>98%

Solubility:

H2O :

Alternative Names:

GS-9137;JTK-303;D06677

Observed Molecular Weight:

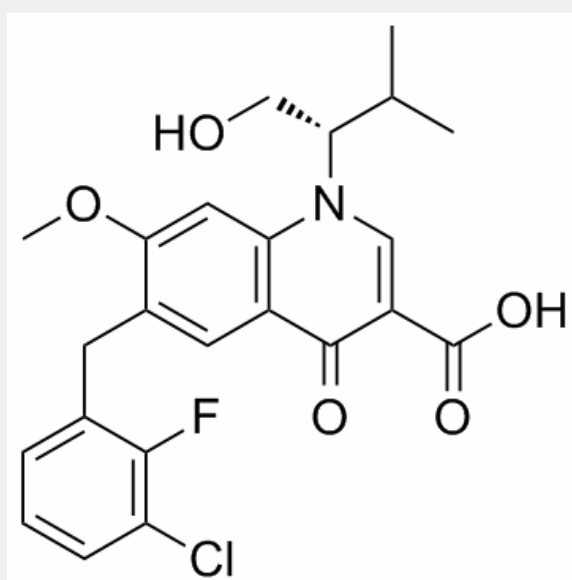
447.88

Product Description

Elvitegravir is an **HIV integrase** inhibitor for HIV-1_{IIIB}, HIV-2_{EHO} and HIV-2_{ROD} with **IC₅₀** of 0.7 nM, 2.8 nM and 1.4 nM, respectively.

IC50 & Target: IC50: 0.7 nM (HIV-1_{IIIB}), 2.8 nM (HIV-2_{EHO}), 1.4 nM(HIV-2_{ROD})^[1]

In Vitro: Elvitegravir (EVG) blocks the integration of HIV-1 cDNA through the inhibition of DNA strand transfer. Elvitegravir exerts potent anti-HIV activity against not only wild-type strains but also drug-resistant clinical isolates. Interestingly, Elvitegravir also shows antiviral activity against murine leukemia virus (MLV) and simian immunodeficiency virus (SIV). Elvitegravir shows potent antiviral activity against three laboratory strains of HIV, with EC₅₀ values in the subnanomolar to nanomolar range. Next, the activity of Elvitegravir is evaluated against wild-type clinical isolates representing various subtypes of HIV-1. Elvitegravir suppresses the replication of all HIV-1 subtypes tested, with an antiviral EC₅₀ ranging from 0.1 to 1.26 nM. Moreover, Elvitegravir suppresses the replication of HIV-1 clinical isolates carrying NRTI, NNRTI, and PI resistance-associated genotypes, as did a control IN inhibitor, the compound L-870,810. The cytotoxicities of these inhibitors are also determined using an MTT colorimetric assay. Mean values for the concentration that suppresses the viability of target cells by 50% for Elvitegravir and L-870,810 in PBMC obtained from three independent donors are 4.6±0.5 µM and 2.7±0.6 µM, respectively. Thus, Elvitegravir can suppress various HIV strains, including diverse HIV-1 subtypes and clinical isolates carrying multiple mutations associated with resistance to currently approved antiretroviral drugs^[1].



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