

MK-2048

Catalog No: tcsc1034



Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

869901-69-9

Formula:

$C_{21}H_{21}ClFN_5O_4$

Pathway:

Metabolic Enzyme/Protease;Anti-infection

Target:

HIV Integrase;HIV

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

461.87

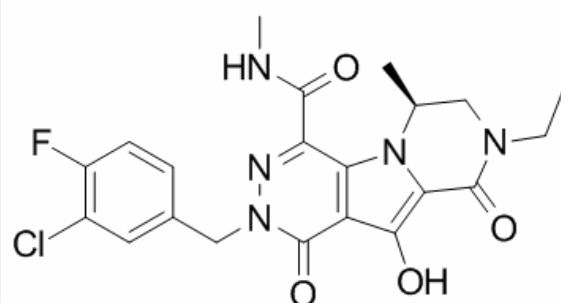
Product Description

MK-2048 is a potent inhibitor of integrase and INR263K with IC50 of 2.6 nM and 1.5 nM, respectively.

IC50 Value: 2.6 nM for HIV Integrase

Target: HIV Integrase

MK-2048 is a second generation integrase inhibitor, intended to be used against HIV infection. MK-2048 inhibits subtype B and subtype C integrase activities. MK-2048 inhibits R263K mutants slightly more effectively than G118R mutants. MK-2048 inhibits S217H intasome and, by contrast, MK-2048 remains fully active against the N224H intasome. MK-2048 displays substantially lower dissociation rates compared with raltegravir, another integrase inhibitor. MK-2048 is active against viruses resistant to RAL and EVG. MK-2048 exposure leads to the selection of G118R as a possible novel resistance mutation after 19 weeks. MK-2048, with continued pressure, subsequently leads to an additional substitution, at position E138K, after 29 weeks, within the IN gene. Although the G118R mutation alone confers only slight resistance to MK-2048 but not to RAL or EVG, its presence arouses a dramatic reduction in viral replication capacity compared to wild-type NL4-3. E138K both partially restores viral replication capacity and also contributes to increased levels of resistance against MK-2048.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!