

# HIV-1 Protease Inhibitor Screening Kit

## Product Information

### Cat.No.

Kit-2143

### Product Overview

HIV-1 Protease Inhibitor Screening kit utilizes the ability of active HIV-1 protease to cleave a synthetic peptide substrate resulting in the release of free fluorophore, which can be easily quantified using a fluorometer or fluorescence microplate reader. In the presence of a HIV-1 Protease inhibitor, the cleavage of the substrate is reduced/abolished resulting in decrease or total loss of the fluorescence. This simple and high-throughput adaptable assay kit can be used to screen/study/characterize potential inhibitors of HIV-1 Protease.

### Size

100 assays

### Description

Human Immunodeficiency Virus (HIV) is the cause of the Acquired Immunodeficiency Syndrome (AIDS). HIV-1 protease is a retroviral aspartyl protease (retropepsin) that is essential for the life-cycle of the virus as it cleaves newly synthesized polyproteins at the appropriate places to create the mature protein components of an infectious HIV virion. Without effective HIV-1 protease, HIV virions remain non-infectious.

### Applications

Screening/studying/characterizing inhibitors of HIV-1 Protease

### Storage

Store kit at -80°C, protected from light. Briefly centrifuge small vials at low speed prior to opening. Read the entire protocol before performing the experiment. HIV-1 Protease Assay Buffer and Dilution Buffer: Bring to room temperature before use. Store at -20°C. HIV-1 Protease: To each vial of HIV1 Protease, add 70 µl of HIV Protease Dilution Buffer as needed. Aliquot and store at -80°C. Avoid repeated freeze/thaw. Use within two months.

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### Kit Components

HIV-1 Protease Assay Buffer: 25 mlHIV-1 Protease Dilution Buffer: 1 mlHIV-1 Protease Substrate: 0.2 mlHIV-1 Protease: 2 VialsHIV-1 Protease Inhibitor (1 mM Pepstatin A in DMSO): 20  $\mu$ l

**Detection method** Fluorescence (Ex/Em = 330/450 nm)

### Compatible Sample Types

Variable: Inhibitors, small molecules, proteins, etc.

### Features & Benefits

- Simple and High throughput adaptable
- Detect using a fluorometer or fluorescence microplate reader.