



HIV-2 Protease

Product Data Sheet

Type: Active

Source: E.coli, refolded from inclusion bodies

Species: Human

Cat. No.:

RH2P0001

(100 µg in 400 µl)

Description

Total 99 AA. MW: 10.7 kDa (monomer), protein active as dimer

Introduction to the Molecule

Retroviral protease is a vital part of the life-cycle of the HIV-1 virus. It is found in the infected cells as a part of the Gag-Pol polyprotein. It is autocatalytically released after the formation of immature viral particles. The enzyme subsequently cleaves the other parts of viral polypeptides causing the virus to mature. In HIV-infected patients the enzyme is subjected to intensive mutagenesis. The selection pressure creates mutants that are resistant to applied medicines. HIV-1 protease is active as a homodimer.

Research topic

Others

Amino Acid Sequence

PQFSLWKRPV VTAHIEGQPV EVLLDTGADD SIVAGIELGS NYSPKIVGGI GGFINTKEYK NVEIEVLNKR VRATIMTGDT
PINIFGRNIL ASLGMSLNL

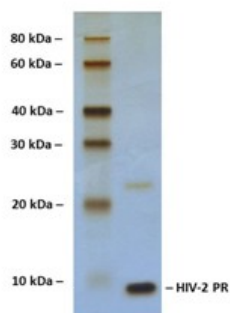
Source

E.coli, refolded from inclusion bodies

Purity

Purity as determined by densitometric image analysis: >95%

SDS-PAGE gel



14% SDS-PAGE separation of Human HIV-2 Protease

1. M.W. marker - 10, 20, 30, 40, 60, 80 kDa

2. reduced and heated sample, 2.5 µg/lane

Formulation

20 mM Tris, 20 mM MES, 200 mM NaCl, 10% glycerol, 1 mM EDTA, 0.5 mM DTT, 0.05% PEG 8000, pH 7.0 - filtered (0.4 µm), frozen

Reconstitution

Defrost at ambient temperature.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store protein at -80°C. Protein remains stable until the expiry date when stored at -80°C. Avoid repeated freezing/thawing cycles.

Quality Control Test

SDS PAGE to determine purity of the protein.

Active site titration by tightly binding inhibitor.

Applications

Crystallography, Inhibitor screening, Kinetic studies

Note

$K_m = 740 \mu\text{M}$

$K_{cat} = 3 \text{ s}^{-1}$

$K_{cat}/K_m = 4.1 \text{ mM}^{-1} \text{ s}^{-1}$ with peptide substrate ATLNFPISPW

Manufactured by AscoProt Biotech