HIV-2 Protease E.coli

Product Data Sheet

Type: Active
Source: E.coli, refolded from inclusion bodies
Species: Human

Cat. No.:
RH2P0001 (0.1 mg)

Description

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

Introduction to the Molecule

Retroviral protease from HIV-2 virus is an enzyme important in the life cycle of the virus. It is expressed in the infected cells as a part of Gag-Pol polyprotein from which it is autocatalytycaly released after formation of immature viral particle. The enzyme subsequently cleaves the other parts of viral polyproteins causing the maturation of the virus. In HIV-infected patients the enzyme is a subject of intensive mutagenesis and mutants resistant to applied medcines are produced as a consequence of the selection pressure. HIV-2 protease is active as a homodimer.

Research topic

Others

Amino Acid Sequence

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PQFSLWKRPV VTAHIEGQPV EVLLDTGADD SIVAGIELGS NYSPKIVGGI GGFINTKEYK NVEIEVLNKR VRATIMTGDT
PINIFGRNIL ASLGMSLNL
```

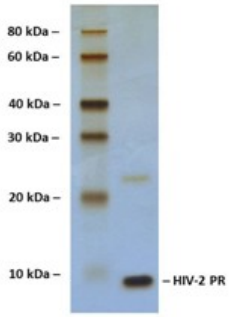
Source

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

On ice. 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 µM
K_{cat} = 3 s^{-1}
K_{cat}/K_m = 4.1 mM^{-1} s^{-1} with peptide substrate ATLNFPISPW

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