

## Native HIV1 PR Protein

Cat. No. PR-01H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview | Native HIV1 Protease Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Species          | HIV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ProteinLength    | 99                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description      | Retroviral protease from HIV-1 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 autocatalytically 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 medicines are produced as a consequence of the selection pressure. HIV-1 protease is active as a homodimer. |
| Molecular Mass   | 10.8 kDa (monomer), protein active as dimer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| AA Sequence      | PQITLWQRPLVTIKIGGQLKEALLDTGADDTVLEEMNLPGRWKPKMIGGIGGFIKVRQ<br>YDQILIEICGHKAIGTVLVGPTPVNIIGRNLLTQIGCTLNF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Purity           | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Applications     | Kinetic studies, Inhibitor screening, Crystallography                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

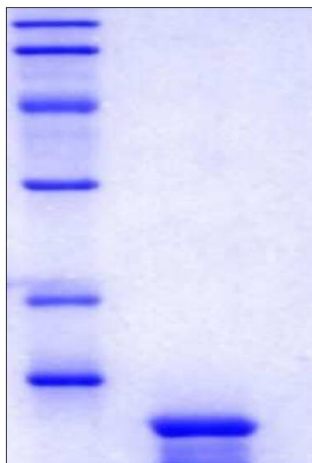
|                             |                                                                                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Quality Control Test</b> | SDS PAGE to determine purity of the protein.<br>Active site titration by tightly binding inhibitor.                                                  |
| <b>Storage</b>              | Store protein at –80 centigrade. Protein remains stable until the expiry date when stored at –80 centigrade. Avoid repeated freezing/thawing cycles. |
| <b>Storage Buffer</b>       | 20 mM sodium acetate, 200 mM NaCl, 10% glycerol, 0.05% 2-mercaptoethanol, 1 mM EDTA, pH 5.0                                                          |
| <b>Reconstitution</b>       | Defrost at ambient temperature.                                                                                                                      |
| <b>Shipping</b>             | On ice                                                                                                                                               |
| <b>GENE INFORMATION</b>     |                                                                                                                                                      |
| <b>Official Symbol</b>      | PR                                                                                                                                                   |
| <b>Synonyms</b>             | PR; protease; HIV-1 protease; Human immunodeficiency virus protease; PR; Retropepsin                                                                 |

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**14% SDS-PAGE  
separation of Human  
HIV-1 Protease**



1. M.W. marker – 14, 21, 31, 45, 66, 97 kDa
2. reduced and heated sample, 2.5 µg/lane

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