

Recombinant Human Immunodeficiency Virus Integrase (Pol) Protein [HIV-1/Clade B (IIB)]

Cat. No. HUM-407 Lot. No. (See product label)

SPECIFICATION

Product Overview

HIV integrase (pol) protein is recombinantly produced in E. coli and fused with GST at the N-terminus.

Background

HIV integrase catalyzes viral DNA integration into the host chromosome, by performing a series of DNA cutting and joining reactions. It is one of three enzymes of HIV, the others being the Reverse Transcriptase and the Protease. The enzyme activity takes place after virion entry into a cell and reverse transcription of the RNA genome in dsDNA. The full length HIV-1 integrase (288 amino acids) has three domains: the N-terminal domain has a His2Cys2 motif which chelates zinc, the core domain has the catalytic DDE motif which is required for its enzymatic activity, and the C-terminal domain has an SH3-like fold which binds DNA nonspecifically. Although all three domains are required for integration, it is thought that the catalytic core domain contains the active site responsible for catalysis of all the reactions of integration/disintegration. The C-terminal domain confers the capacity to bind both viral and host DNA. The structure and function of the N-terminal domain are presently unknown, but it contains a His2Cys2 zinc binding motif, suggesting a possible interaction with nucleic acid. HIV integrase is a 32 kDa protein produced from the C-terminal portion of the Pol gene product, and is an attractive target for anti-HIV drugs.

Formulation

Stored in 1.5 M urea; 25 mM Tris-HCl pH 8.0; 0.2% Tween-20; 50% Glycerol.

Applications

Suitable for use in ELISA, Western blot and flow-through. Reacts strongly with human HIV positive serum.

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Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
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Type	Recombinant
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ClassID 1	Infectious Disease
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GENE INFORMATION

Synonyms	HIV Integrase (Pol) [HIV-1/Clade B (IIIB)]
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