

## Recombinant HIV-1 Integrase

REP0063
$20 \mu \mathrm{~g}$

| Description | Integrase catalyzes viral DNA integration into the host chromosome, by performing a series of DNA cutting and joining reactions. 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 catalytic core, the C-terminal, and the N-terminal domains. 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. |
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| Product type | Recombinant His tagged protein |
| Peptide | Recombinant full-length protein: HIV-1 Integrase - Accession number: ACM44577.2 |
| Expression system | Escherichia coli |
| Tested by | SDS Page, Western Blotting |
| Purity | >95\% pure estimated by SDS-PAGE (EU Ph. 5.0 § 2.5.31) |
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|  | Purified recombinant HIV-1 integrase (lane 1, molecular weight standard; lane 2, $0.5 \mu \mathrm{~g}$; lane $3,0.75 \mu \mathrm{~g}$; lane $4,1 \mu \mathrm{~g}$ ) was separated by SDS-PAGE (12\% polyacrylamide) and stained with Coomassie Blue. |
|  | 20.1kDa - <br> 14.4kDa - |
| Form | Liquid |
| Storage buffer | 20 mM phosphate buffer $\mathrm{pH} 7.5,1 \mathrm{M} \mathrm{NaCl}, 10 \mu \mathrm{M}$ Zinc acetate, 1 mM DTT, 0.1 mM EDTA; $10 \%(\mathrm{v} / \mathrm{v})$ glycerol. |
| Storage instructions | Shipped in dry ice. The protein is stable for 12 months if stored at $-20^{\circ} \mathrm{C}$. Avoid freeze-thaw cycles. |

