



# HIV type 1 Integrase protein [Proxidase] (DAG-T1098)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

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| <b>Product Overview</b> | E.coli derived recombinant protein. The protein contains the HIV-1 immunodominant regions from pol protein (integrase). Horseradish peroxidase labeled (P). |
| <b>Species</b>          | HIV                                                                                                                                                         |
| <b>Conjugate</b>        | Proxidase                                                                                                                                                   |
| <b>Preservative</b>     | None                                                                                                                                                        |
| <b>Storage</b>          | Store at 2–8 °C                                                                                                                                             |

## BACKGROUND

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| <b>Introduction</b> | <p>Human immunodeficiency virus (HIV) is a retrovirus that can lead to a condition in which the immune system begins to fail, leading to opportunistic infections. HIV primarily infects vital cells in the human immune system such as helper T cells (specifically CD4+ T cells), macrophages and dendritic cells. HIV infection leads to low levels of CD4+ T cells through three main mechanisms: firstly, direct viral killing of infected cells; secondly, increased rates of apoptosis in infected cells; and thirdly, killing of infected CD4+ T cells by CD8 cytotoxic lymphocytes that recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunity is lost, and the body becomes progressively more susceptible to opportunistic infections. HIV was classified as a member of the genus <i>Lentivirus</i>, part of the family of <i>Retroviridae</i>. Lentiviruses have many common morphologies and biological properties. Many species are infected by lentiviruses, which are characteristically responsible for long-duration illnesses with a long incubation period. Lentiviruses are transmitted as single-stranded, positive-sense, enveloped RNA viruses. Upon entry of the target cell, the viral RNA genome is converted to double-stranded DNA by a virally encoded reverse transcriptase that is present in the virus particle. This viral DNA is then integrated into the cellular DNA by a virally encoded</p> |
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integraseso that the genome can be transcribed. Once the virus has infected the cell, two pathways are possible: either the virus becomes latentand the infected cell continues to function, or the virus becomes active and replicates, and a large number of virus particles are liberated that can then infect other cells.

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| <b>Keywords</b> | Human immunodeficiency virus 1; HIV-1 |
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