



# Recombinant HIV type 1 Integrase Protein [His] (DAG2728)

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

## PRODUCT INFORMATION

<b>Product Overview</b>	The E. coli derived 26 kDa recombinant protein is a non-glycosylated polypeptide chain, containing the HIV-1 immunodominant regions from the pol protein (integrase) and fused with six histidines at the Nterminus.
<b>Antigen Description</b>	Integrase is an enzyme produced by the HIV which enables its genetic material to be integrated into the DNA of the infected cell and is a key component in the pre-integration complex. HIV integrase contains 3 domains, an N-terminal HH-CC zinc finger domain which is partially responsible for multimerization, a central catalytic domain and a C-terminal domain. Both Central catalytic domain and C-terminal domains have been shown to bind both viral and cellular DNA. No crystal structure data exists with Integrase bound to its DNA substrates. HIV-1 integrase functions as a dimer or a tetramer. Additionally, several host cellular proteins interact with integrase and may facilitate the integration process
<b>Specificity</b>	Immunoreactive with all sera of HIV-1 infected individuals
<b>Species</b>	HIV
<b>Purity</b>	Greater than 95. 0% as determined by HPLC analysis and SDS-PAGE.
<b>Conjugate</b>	His
<b>Applications</b>	HIV-1 Integrase antigen is suitable for ELISA and Western blots, excellent antigen for early detection of HIV seroConvertors with minimal specificity problems.
<b>Preservative</b>	None
<b>Storage</b>	2-8°C short term, -20°C long term

## BACKGROUND

**Introduction**

The human immunodeficiency virus (HIV) is a lentivirus (slowly replicating retrovirus) that causes the acquired immunodeficiency syndrome (AIDS), a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive. Without treatment, average survival time after infection with HIV is estimated to be 9 to 11 years, depending on the HIV subtype. Infection with HIV occurs by the transfer of blood, semen, vaginal fluid, pre-ejaculate, or breast milk. Within these bodily fluids, HIV is present as both free virus particles and virus within infected immune cells.

**Keywords**

HIV; Human Immunodeficiency virus 1; IN; Integrase; HIV1 integrase