9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

HIV-1 p24 gag

HIV-1 p24 gag Recombinant
VAG0326

Product Overview

Name	HIV-1 p24 gag

Description

HIV-1 p24 gag Recombinant

Introduction

Human immunodeficiency virus (HIV) is a retrovirusthat can lead to a condition in which the immune systembegins to fail, leading to opportunistic infections. HIV primarily infects vital cells in the humanimmune systemsuch as helper T cells(specifically CD4+ T cells), macrophagesand 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 apoptosisin infected cells; and thirdly, killing of infected CD4+ T cells by CD8 cytotoxic lymphocytesthat recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunityis lost, and the body becomes progressively more susceptible to opportunistic infections. HIV was classified as a member of the genus Lentivirus, part of the family of Retroviridae. 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 genomeis converted to double-stranded DNAby a virally encoded reverse transcriptasethat is present in the virus particle. This viral DNA is then integrated into the cellular DNA by a virally encoded 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.

Source

Escherichia Coli.

Physical Appearance

Sterile filtered colorless clear solution.

Formulation

8M urea, 20mM Tris-HCl pH-8 & 10mM b-mercaptoethanol.

Stability

HIV-1 p24 gag although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.

Purity

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Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.

Amino acid sequence

slyn tvatlycvhq rieikdtkea ldkikeeqnk skkkaqqaaa dtghssqvsq nypivqniqg qmvhqaispr tlnawvkvve ekafspevip mfsalsegat pqdlntmlnt vgghqaamqm lketineeaa ewdrvhpvha gpiapgqmre prgsdiagtt stlqeqigwm tnnppipvge iykrwiilgl nkivrmyspt sildirqgpk epfrdyvdrf yktlraeqas qevknwmtet llvqnanpdc ktilkalgpa atleemmtac qgvggpghka rvlaeamsqv tnsatimmqr gnfrnqrkiv kcfncgkegh iarncraprk kgcwkcgkeg hqmkdcterq anflgk.

Applications

HIV-1 p24 gag antigen in ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.

References

Title: Polyfunctional CD4+ and CD8+ T Cell Responses to Tuberculosis Antigens in HIV-1–Infected Patients before and after Anti-Retroviral Treatment Publication: The Journal of Immunology 184.11 (2010): 6537-6544. Link: HIV-1 p24 gag prospec publication

Specificity

Immunoreactive with all sera of HIV-1 infected individuals.

Precautions

HIV-1 p24 gag is for research use only and not for use in diagnostic or therapeutic procedures.