
Product Data Sheet

Product Name: HIV Type-O gp41 13kDa

Cat. No.: GP25421

Batch No.: 1

Product Data

Purity >98% Source Escherichia Coli.

Physical Appearance solid Shipping Condition Shipped at Room temp.

Amino Acid Sequence
MGHHHHHGSVQHTLLKGIVQQDNLLRAIQAQQHLLRLSVWGIRQLRARLLAETLI
QNQQLLNLWGAKGRLLIAYTSVKWNTTWGGGSIWGNLTWQEWDQQIDNVSSIIYEEIQ
KAQDQQEQNEKKLLELDE.Solubility It is recommended to reconstitute the lyophilized HIV Type-O gp41 in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Formulation Lyophilized from 1mg/ml in 20mM Na-carbonate, pH 9.6.

Introduction

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 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 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 integrase so that the genome can be transcribed. Once the virus has infected the cell, two pathways are

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possible: either the virus becomes latent and 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.

Stability

HIV Type-O gp41 although stable at room temperature for 4 weeks, should be stored below -18°C . Please prevent freeze thaw cycles.

Background

Recombinant HIV-1 gp41 Type-O produced in E.coli is a non-glycosylated polypeptide chain having a molecular mass of 13kDa and fused to a His tag at N-terminus.

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