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Antibody to HIV-1 gp41
MOUSE MONOCLONAL

Catalog Number: AB-482
Quantity: 500 micrograms
Format: Lyophilized
Host: Mouse
Isotype: IgG1
Clone: NYRHIV1gp41
Immunogen: r.gp41

Background:

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 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.

Specificity and Preparation:

Mouse Anti-HIV-1 gp41 is purified by ion exchange column. Protein concentration is 1 mg/ml in PBS (after reconstitution). This antibody was produced in BALB/c mice. No cross reactivity with murine IL-8 was detected.

Usage and Storage:

Applications include direct ELISA (against recombinant gp41). Titer: 1:10,000 dilution will yield 0.27 O.D using alkaline phosphatase conjugated rabbit anti-mouse Ig (Jackson Laboratories).

Reconstitute with H₂O. Mix gently, wash the sides of the vial and wait 30-60 seconds before use.

Store lyophilized material at 4°C in dry environment. After reconstitution, if not intended for use within a month, aliquot and store at -20°C. Material is stable for two years lyophilized, one month in solution at 4°C.