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Antibody to HIV-1 gp41
MOUSE MONOCLONAL

Catalog Number: PRP-159ANT
Quantity: 500 micrograms, 1 milligram
Format: Lyophilized
Host: Mouse
Isotype: IgG1
Clone: NYRHIV1gp41
Immunogen: r.gp41

Background:

Human immunodeficiency virus (HIV) is a retrovirus that can cause 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 is 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 over an 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:

Reported to be effective for 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. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. 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.

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