

Centre for AIDS Reagents

Data Sheet

NAME:	Monoclonal Antibody to HIV-1 gp41 (50-69D)
REPOSITORY REFERENCE:	ARP 3222
PRESENTATION:	1ml
EXPRESSION SYSTEM:	Human
ISOTYPE:	IgG1 κ , λ chain
TITER:	ELISA: 1:1000; Western blots: 1:5; ADCC: 1:4
SPECIAL CHARACTERISTICS:	Obtained from EBV-immortalized peripheral blood mononuclear cells from HIV-seropositive individuals. The lymphoblastoid cells producing this monoclonal antibody were initially cultured in August of 1987. Reacts with a gp41 peptide spanning aa 579-613 in ELISA. Exact epitope has not been identified because this monoclonal reacts with the conformational determinant. Reactivity depends on the presence of a conformation which is maintained by an intrachain disulfide bond. Reacts with HIV lysate and a large recombinant peptide, p 121, aa 560-641, but not with the short peptide aa 579-604. When this antibody was biotinylated and tested against a panel of anti-gp41 monoclonals, blocking of the binding region was confirmed. The antibody does not inhibit HIV-1III _B or HIV-1RF associated cell fusion and does not neutralize HIV-1III _B infection of AA5 cells. It mediates ADCC against III _B and RF – infected cells, and influences III _B infection of MT-2 target cells through complement-mediated, antibody-dependent enhancement. When conjugated to deglycosylated ricin A chain, this monoclonal kills H9 cells infected with HIV-1 Isolates III _B , LAV, SAN, BAG, and Z34.
STORAGE:	-20°C
SOURCE:	Dr. Susan Zolla-Pazner
REFERENCES:	Gorny MK, Gianakakos V, Sharpe S, Zolla-Pazner S. Generation of human monoclonal antibodies to human

Immunodeficiency virus. Proc. Natl Acad Sci USA 86: 1624-1628, 1989

Pinter A, Honnen WJ, Tilley SA, Bona C, Zaghouni H, Gorny MK, Zolla-Pazner S. Oligomeric structure of p41, The transmembrane protein of human immunodeficiency Virus type 1. J. Virol 63:2674-2679, 1989

Till MA, Ghetie V, May R, Auerbach PC, Zolla-Pazner S, Gorny MK, Gregory T, Uhr JW, Vitetta ES. Immunoconjugates containing ricin A chain and either human anti-gp41 or C4 kill Hp cells infected with different isolates of HIV, but do not inhibit normal T or B cell function. J Acquired Immune Defic Syndr 3:609-614, 1990

Xu JY, Gorny MK, Palker T, Karawowska S, Zolla-Pazner S. Epitope mapping of ten human mono-clonal antibodies to gp41, the transmembrane protein of HIV-1. J. Virol 65:4832-4838, 1991

Tyler DS, Stanley SD, Zolla-Pazner S, Gorny MK, Shaddock PP, Langlois AJ, Matthews TJ, Bolognesi DP, Palker TJ, Weinhold KJ. Identification of sites within gp 41 that serves as targets for antibody-dependent cellular cytotoxicity by using human monoclonal antibodies. J Immunol 145:3276-3282, 1990

NOTE:

Acknowledgment for publications should read “The following reagent was obtained through the AIDS Research and Reference Reagent Program, Division of AIDS, NIAID, NIH: Monoclonal Antibody to HIV-1 gp41 (No. 50-69) from Dr. Susan Zolla-Pazner.” Also include the references cited above in any publications.

Patent pending. Corporate requests should be directed in writing to Dr. Susan Zolla-Pazner at the Veterans Administration Medical Center, 408 First Avenue, New York, NY 10010.

ACKNOWLEDGEMENTS:

Publications should acknowledge the donor of the reagent and the Centre for AIDS Reagents. Suggested wording can be found on our website in the “Acknowledgement” section at:-

www.nibsc.ac.uk/spotlight/centre_for_aids_reagents.aspx

Please also ensure that you send us a copy of any papers resulting from work using reagents acquired through CFAR, this can be by e-mail or printed copy.