

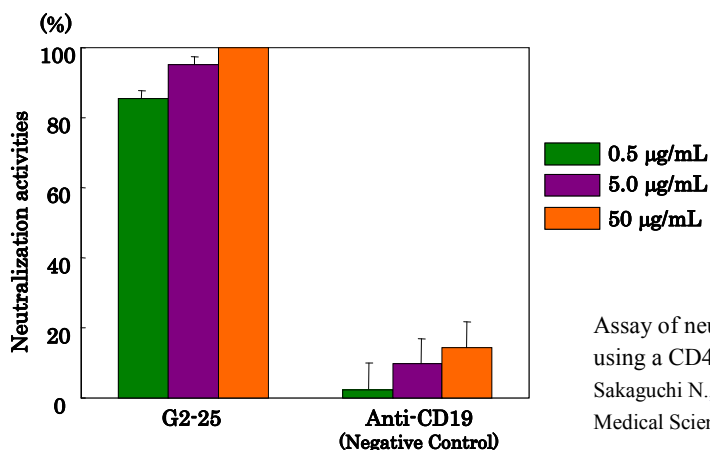
Anti HIV-1 (gp120) Monoclonal Antibody (Clone No. G2-25)

Human immunodeficiency virus (HIV) is a retrovirus that causes *acquired immunodeficiency syndrome* (AIDS). If infected with HIV, the body becomes progressively more susceptible to opportunistic infections. Now, HIV infection in humans is pandemic, most HIV-infected patients eventually develop AIDS and die.

HIV-1 must enter a permissive host cell to replicate and produce new virions. HIV-1 can infect a variety of immune cells such as CD4⁺ T cells, macrophages, and microglial cells. The main steps in the viral entry process are (i) the attachment of HIV-1 particles to the cell surface by the interaction between the viral glycoprotein gp120 and the cellular CD4 receptor, (ii) binding of the gp120 to the chemokine co-receptors CCR5 and CCR4 and (iii) fusion of the viral envelope and the cellular membrane. Therefore, preventing the attachment of the HIV envelope to cellular CD4 is an attractive target in the search for new drugs.

This antibody was produced from a GANP mouse immunized with gp120 region of HIV-1, and has been shown to have the neutralizing activity against virus infection.

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|---------------------|--|
| Package Size | 125 µg (500 µL/vial) |
| Format | Mouse monoclonal antibody 0.25mg/mL |
| Buffer | PBS [containing 2% Block Ace as a stabilizer, 0.1%Proclin as a bacteriostat] |
| Storage | Store below -20°C |
| | Once thawed, store at 4°C. Repeated freeze-thaw cycles should be avoided. |
| Purification method | The splenic lymphocytes from GANP mouse, immunized with the V3 loop of gp120 region of NL4-3 HIV-1 strain (prototype X4; T cell tropic) conjugated with KLH, were fused to X63 myeloma cells. The screening of the hybridoma cells was performed on ELISA. The cell line with positive reaction was grown on serum-free medium, from which the antibody was purified by Protein G affinity chromatography. |
| Application | Assay of neutralization activity: 50 µg/mL |



Assay of neutralization activity against HIV infection using a CD4-LTR/β-galactosidase-induced HeLa cell line
Sakaguchi N., Department of Immunology, Graduate School of Medical Sciences, Kumamoto University, Honjo, Kumamoto, Japan

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1. Sakaguchi N, Kimura T, Matsushita S, Fujimura S, Shibata J, Araki M, Sakamoto T, Minoda C, Kuwahara K.
Generation of high-affinity antibody against T cell-dependent antigen in the Ganp gene-transgenic mouse.
J Immunol. 2005 Apr 15;174(8):4485-94

Supplier**SCETI****SCETI K.K.**

3-6-7 Kasumigaseki, Chiyoda-ku, Tokyo 100-0013, JAPAN

Tel +81(3) 5510-2347 Fax +81(3) 5510-0133

URL: <http://www.sceti.jp/export/> e-mail: exp-pet@sceti.co.jp