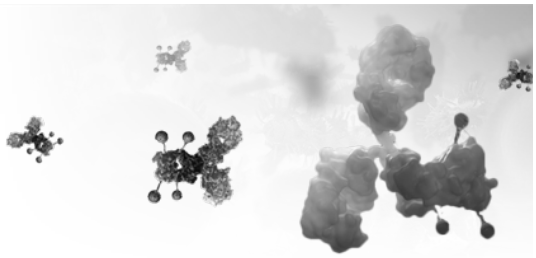

Human Anti-HIV-1 gp120 (V3 loop) Monoclonal Antibody, clone 694-D (CABT-YN1401)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	HIV
Target	HIV-1 gp120
Immunogen	The mAb was made by immortalizing IgG-expressing B cells from patients infected with diverse clades of HIV-1.
Isotype	IgG1
Source/Host	Human
Species Reactivity	HIV
Clone	694-D
Purification	Protein A
Conjugate	unconjugated
Applications	Func, Neut, WB, ELISA, IF
Epitope	The mAb 694-D recognizes a neutralizing epitope of the hypervariable V3 loop of HIV-1 gp120. This antibody was demonstrated to be neutralizing against HIV. It can be used synergistically with other neutralizing HIV antibodies. This clone inhibits the binding of gp120 to soluble recombinant CD4. Consequently, this antibody is recommended for research on the develpment of successful treatment and prevention of HIV infection, as effective neutralizing antibodies are capable of depleting the viral load in patients exposed to the virus.
Format	Liquid
Size	200 µg, 1 mg

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Buffer	PBS with 0.02% Proclin 300.
Preservative	0.02% Proclin 300
Storage	Store at 4ºC for up to 3 months. For longer storage, aliquot and store at -20ºC.

BACKGROUND

Introduction	Human Immunodeficiency Virus (HIV) isolates are currently grouped into two types, HIV-type 1 (HIV-1) and HIV-type 2 (HIV-2). The structure of the HIV particle is similar for both HIV-1 and HIV-2. Similarly to other retroviruses, the gag gene encodes the structural proteins of the core (p24, p7, p6) and matrix (p17) and the env gene encodes the viral envelope glycoproteins gp120 and gp41, which recognize cell surface receptors. The pol gene encodes for enzymes crucial for viral replication, which are the reverse transcriptase that converts viral RNA into DNA, the integrase that incorporates the viral DNA into host chromosomal DNA (the provirus) and the protease that cleaves large Gag and Pol protein precursors into their components. Each viral particle membrane includes glycoprotein heterodimer complexes composed of trimers of the external surface gp120 and the transmembrane spanning gp41 glycoproteins bound together. The binding between gp120 and gp41 is not covalent and therefore the gp120 may be shed spontaneously within the local environment and detected in the serum, as well as within the lymphatic tissue of HIV infected patients. The viral envelope glycoprotein gp120 binds CD4 and CC-chemokine receptor 5 (CCR5) on the surface of target cells triggering the fusion of the viral and host cell membranes.
Keywords	Envelope glycoprotein; Envelope glycoprotein gp160; Env polyprotein; Surface protein gp120; SU; Glycoprotein 120

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