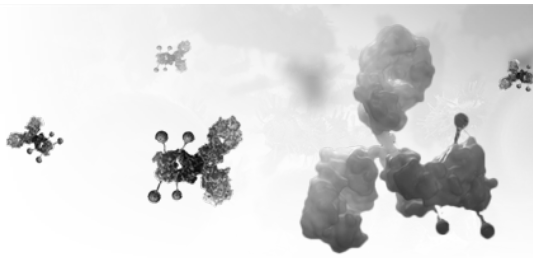

Rabbit Anti-HIV-1 gp41 Monoclonal Antibody, clone A7 (CABT-YN1423)

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

PRODUCT INFORMATION

Specificity	HIV
Target	HIV-1 gp41
Immunogen	A phage immune library generated from a long-term non-progressors with HIV neutralizing antibodies in his plasma. The phage library was screened on recombinant soluble gp140 envelope (Env) proteins and the antibody was isolated.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	HIV
Clone	A7
Purification	Protein A
Conjugate	unconjugated
Applications	Neut, ELISA
Format	Liquid
Size	200 µg, 1 mg
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.

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

BACKGROUND

Introduction	HIV-1 envelope glycoprotein [Env; trimeric (gp160)3 cleaved to (gp120/gp41)3] attaches the virion to a susceptible cell and induces fusion of viral and cell membranes to initiate infection. It interacts with the primary receptor CD4 and coreceptor (e.g., chemokine receptor CCR5 or CXCR4) to allow viral entry by triggering large structural rearrangements and unleashing the fusogenic potential of gp41 to induce membrane fusion. Gp41, with its C terminal transmembrane (TM) segment in the viral membrane, adopts a prefusion conformation within the precursor gp160. Cleavage between gp120 and gp41 makes the protein metastable with respect to the postfusion conformation. When triggered by gp120 binding to the receptors, the N terminal fusion peptide (FP) of gp41 translocates and inserts into the target cell membrane. Subsequent rearrangements involve refolding of gp41 into a hairpin conformation, creating a six-helix bundle known as the postfusion conformation, which places the FP and TM segments at the same end of the molecule and effectively brings the two membranes together. Formation of hemifusion stalk is followed by formation of fusion pore, but formation of hemifusion stalk is reversible and go back to two separate membranes.
Keywords	TM; Glycoprotein 41; SU; surface protein gp41; env polyprotein; envelope glycoprotein gp160; HIV; HIV1; HIV-1; HIV1 GP41; HIV GP41; transmembrane protein 41; HIV env protein

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221