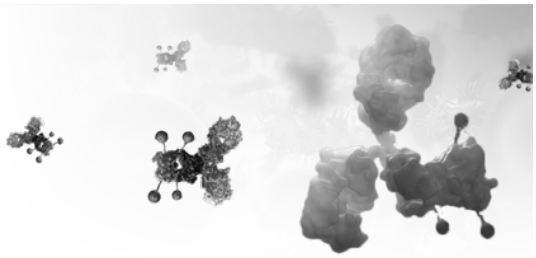

Mouse Anti-HIV-1 gp41 Monoclonal Antibody, clone L92E7 (CABT-YN1418)

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

PRODUCT INFORMATION

Specificity	This highly potent broadly neutralizing antibody binds HIV-gp41 and is capable of neutralizing HIV strains belonging to the A, A/G, B, B/C and C subtypes.
Target	HIV-1 gp41
Immunogen	The original antibody was generated by immunizing Llama galama with two different types of antigens gp140 CN54 (subtype B´/C) and gp140 UG37 (subtype A).
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	HIV
Clone	L92E7
Purification	Protein A
Conjugate	unconjugated
Applications	Neut, ELISA
Epitope	This antibody binds a new linear epitope in the first heptad repeat of gp41 that is only exposed in the fusion-intermediate conformation.
Format	Liquid
Size	200 µg, 1 mg
Buffer	PBS with 0.02% Proclin 300.

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

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

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