

Mouse Anti-gp120/gp140(HIV-1)(Clade C) Monoclonal Antibody

CATALOG NUMBER: MIV-C-036

Applications

Envelope glycoprotein GP120 (or gp120) is a glycoprotein exposed on the surface of the HIV envelope. Gp120 is essential for virus entry into cells as it plays a vital role in attachment to specific cell surface receptors. These receptors are DC-SIGN, Heparan Sulfate Proteoglycan and a specific interaction with the CD4 receptor,[4] particularly on helper T-cells. Binding to CD4 induces the start of a cascade of conformational changes in gp120 and gp41 that lead to the fusion of the viral with the host cell membrane.

Gp120 is coded by the HIV env gene, which is around 2.5 kb long and codes for around 850 amino acids. The primary env product is the protein gp160, which gets cleaved to gp120 (~480 amino acids) and gp41 (~345 amino acids) in the endoplasmatic reticulum by the cellular protease furin. Three gp41s (transmembrane glycoprotein) and gp120s combine in a trimer of heterodimers to form the envelope spike, which mediates attachment to and entry into the host cell.

Applications

ELISA, IP, IF, etc.

Description

Mouse anti-gp120/gp140 (HIV-1/Clade C) monoclonal antibody

Isotype

IgG2a

Epitope

Conformational

Immunogen

DNA vaccine expressing recombinant gp140 (HIV-1/Clade C)(C.ZA.1197MB) protein (aa 24-680) (Genebank No. AY463234)

Specificity

Reacts with most gp120/gp140 (HIV-1/Clade C). Minimal cross-reactivity to other subtypes.

Concentration

1 µg/µl purified IgG in PBS with 40% glycerol

Storage

Do not freeze. Stable at 4 °C for 6 months from the date of shipment. Non-hazardous.

