DATA SHEET

For research use only. Not for use in humans.

Reagent: Monoclonal Anti-Human Immunodeficiency Virus Type 1 (HIV-1) gp120 Protein (E51)

Catalog Number: ARP-11439

Lot Number: 200009

Release Category: C

Provided: Each vial of ARP-11439 contains approximately 500 micrograms of affinity purified antibody in phosphate-buffered saline (PBS) at a concentration of 1 mg per mL. Purity was > 95% as determined by SDS-PAGE analysis. Endotoxin content was < 0.5 EU per mg.

Description: ARP-11439 is a monoclonal antibody to HIV-1 gp120. This antibody was derived by Epstein-Barr virus (EBV) transformation of B cells from peripheral blood mononuclear cells (PBMCs) of an HIV-1 infected patient.

Host or Host Site: Human EBV-transformed B cell fused to HMMA2.11TG/O heteromyeloma

Special Characteristics: The human EBV-transformed B cells were fused to HMMA2.11TG/O heteromyeloma. The antibody was purified from culture supernatant fluid by Protein A affinity chromatography. This CD4i antibody binds to a highly conserved conformation-dependent epitope within the coreceptor binding site on gp120. A sulfated tyrosine in an unusually long CDR H3 contributes to antibody recognition of gp120. This antibody exhibits limited neutralizing activity against primary HIV-1 isolates.

Recommended Storage: Keep at 4°C only for short term storage and -80°C for long term storage. Avoid freeze-thaw cycles as reagent degradation may result.

Contributor: Dr. James E. Robinson

Isotype: IgG1

References:

Huang, C.-C., et al. "Structural Basis of Tyrosine Sulfation and V_H-Gene Usage in Antibodies that Recognize the HIV Type 1 Coreceptor-Binding Site on gp120." Proc. Natl. Acad. Sci. 101 (2004): 2706-2711. PubMed: 14981267.

Xiang, S.-H., et al. "Epitope Mapping and Characterization of a Novel CD4-Induced Human Monoclonal Antibody Capable of Neutralizing Primary HIV-1 Strains." Virology 315 (2003): 124-134. PubMed: 14592765.

Choe, H., et al. "Tyrosine Sulfation of Human Antibodies Contributes to Recognition of the CCR5 Binding Region of HIV-1 gp120." Cell 114 (2003): 161-170. PubMed: 12887918.

Citation: Acknowledgment for publications should read "The following reagent was obtained through the NIH HIV Reagent Program, Division of AIDS, NIAID, NIH: Monoclonal Anti-Human Immunodeficiency Virus Type 1 (HIV-1) gp120 Protein (E51), ARP-11439, contributed by Dr. James E. Robinson." Also include the references cited in any publications.

Biosafety Level: 1 Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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Note:

Scientists at for-profit institutions or who intend commercial use of this reagent must contact Dr. James E. Robinson, Tulane University HSC at the following email address: jrobinso@tulane.edu, and specify in the email the name of the reagent and a description of the intended use of the reagent.

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