



NIH AIDS Reagent Program

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DATA SHEET

Reagent: ☒ SIVrcm GAB1 Virus

Catalog Number: 5459

Lot Number: 10/25/96

Release Category: B

Provided: 1 mL vial cell-free virus
TCID₅₀ = 3.2×10^4 /mL
p27 = 2,066 ng/mL

Original Source: Isolated in human PBMCs from PBMCs of a red-capped mangabey (*Cercocebus torquatus*) in Gabon. SIVrcmGAB1 was passaged once in Molt-4 Clone 8 cells and expanded in human PBMCs (Georges-Courbot et al., 1998).

Propagation: SIVrcm will grow in human PBMCs, rhesus PBMCs or Molt-4 Clone 8 cells. SIVrcm does not grow in CEM×174 cells. If grown in human PBMCs, stimulate cells with 10 µg/ml PHA for three days. Wash cells and culture in complete media (RPMI 1640, 10% FCS, Pen/Strep, L-glutamine) + 10% IL-2. Inoculate ~500 TCID₅₀ and test for SIVmac p27 antigen twice weekly. Fresh uninfected cells should be added if cell number declines. SIVrcm cross-reacts in the SIVmac p27 antigen assay and yield very high numbers in this assay. Virus is weakly cytopathic in human PBMCs or Molt-4 Clone 8.

Sterility: Negative for mycoplasma, bacteria and fungi.

Description: SIVrcm GAB1 Virus is a distinct genetic lineage of the SIV family

Special Characteristics: SIVrcm GAB1 Virus is unique in its use of CCR2 as its major co-receptor in PBMCs (Zhang et al., 2000). The virus does not use CCR5 or CXCR4 (Chen et al., 1998; Zhang et al., 2000). The virus is useful for co-receptor experiments, especially for experiments where CCR2 tropism is needed. SIVrcmGAB1 also uses STRL33 (BONZO), US28 and V28 (Chen et al., 1998; Zhang et al., 2000). SIVrcm is a recombinant with SIVcpz that occurs naturally in red-capped mangabeys in Gabon and Cameroon (Georges-Courbot et al., 1998). The natural host (*C. torquatus torquatus*) has a high frequency of a 24 bp deletion in the CCR5 gene. Δ24 bp CCR5 is not functional (Chen et al., 1998).

ALL RECIPIENTS OF THIS MATERIAL MUST COMPLY WITH ALL APPLICABLE BIOLOGICAL, CHEMICAL, AND/OR RADIOCHEMICAL SAFETY STANDARDS INCLUDING SPECIAL PRACTICES, EQUIPMENT, FACILITIES, AND REGULATIONS. NOT FOR USE IN HUMANS.

Recommended Storage: Liquid nitrogen.

Contributor: Dr. Preston A. Marx.

References: Georges-Courbot MC, Lu CY, Makuwa M, Telfer P, Onanga R, Dubreuil G, Chen Z, Smith SM, Georges A, Gao F, Hahn B, Marx PA. Natural infection of a household pet red-capped mangabey (*Cercocebus torquatus torquatus*) with a new simian immunodeficiency virus having pol sequences in the HIV-1 lineage. *J Virol* **72**:600-608, 1998.

Chen Z, Kwon D, Jin Z, Monard S, Telfer P, Jones MS, Aguilar R, Ho DD, Marx PA. Natural infection of a homozygous $\Delta 24$ CCR5 red-capped mangabey with a 2b-tropic SIV. *J Exp Med* **199**:2057-2065, 1998. Zhang Y, Lou B, Lal RB, Gettie A, Marx PA, Moore JP. The use of inhibitors to evaluate co-receptor usage by simian and simian/human immunodeficiency viruses and human immunodeficiency virus type 2 in primary cells. *J Virol* **74**:6893-6910, 2000.

NOTE: Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, NIAID, NIH: SIVrcm GAB1 Virus from Dr. Preston A. Marx." Also include the references cited above in any publications.

**Requests from commercial organizations should be directed to Dr. Preston A. Marx, Tulane Regional Primate Research Center, 18703 Three Rivers Road, Covington, LA 70433.
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