



NIH AIDS Reagent Program

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DATA SHEET

Reagent:	HIV-1 RSC3 G367R Recombinant Protein
Catalog Number:	12363
Lot Number:	130009
Provided:	200 µg of lyophilized protein. Add 1 mL of PBS, or less to obtain your desired concentration.
Molecular Weight:	Appeared as a 65 KD protein (Calculated M.W. is 36.5 KD).
Purity:	>95%
Description:	This HXB2-based gp120 protein was designed to enhance CD4 binding site (CD4bs)-directed antibody binding. The G367R mutation maintains binding of strongly neutralizing mAbs such as VRC01 while reducing binding of other CD4bs-mAbs.
Special Characteristics:	<p>Resurfaced Stabilized Core 3 (RSC3) is based on the HXB2 Ds12F123 stabilized core. This protein lacks variable regions V1, V2, and V3, is truncated at the N- and C-terminal regions, and is cross-linked at different subregions to stabilize the structure. In ELISAs, it binds strongly to 2G12 and strong-moderately to VRC01, weakly to VRC03 and doesn't bind to b12.</p> <p>Alternate names: Resurfaced stabilized core G367R protein, RSC3 G367R</p>
Recommended Storage:	Keep at -80°C. Avoid freeze-thaw cycles as reagent degradation may result.
Contributor:	Drs. Zhi-Yong Yang, Peter Kwong, Gary Nabel and John Mascola
References:	<p>Wu X., Yang Z.Y., Li Y., et al: Rational Design of Envelope Identifies Broadly Neutralizing Human Monoclonal Antibodies to HIV-1. <i>Science</i>, 329: 856-861 (2010). Abstract</p> <p>Lynch R.M., Tran L., Louder M.K., et al: The Development of CD4 Binding Site Antibodies during HIV-1 Infection. <i>J Virol.</i> 2012 July; 86(14): 7588-7595. doi: 10.1128/JVI.00734-12. Abstract.</p> <p>This article details the differences of binding between the 4 RSC3 variants. Abstract</p>

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.

This article details the differences of binding between the 4 R5C3 proteins AKP offers and various broadly neutralizing antibodies. Please note Table 1.

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: HIV-1 RSC3 G367R Recombinant Protein (Cat #12363) from Drs. Zhi-Yong Yang, Peter Kwong, Gary Nabel." Also include the references cited above in any publications.

Scientists at for-profit institutions or who intend commercial use of this reagent must contact: The Office of Technology Development, NIAID, 6610 Rockledge Drive, Suite 2800, MSC 6606, Bethesda, MD, 20892-6606, Tel: 301-496-2644, Fax: 301-402-7123, before the reagent can be released.

Last Updated:

August 26, 2016

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