



## NIH AIDS Reagent Program

20301 Century Boulevard  
Building 6, Suite 200  
Germantown, MD 20874  
USA

Phone: 240 686 4740  
Fax: 301 515 4015  
aidsreagent.org

### DATA SHEET

<b>Reagent:</b>	HIV-1 RSC3 $\Delta$ 371I/P363N Recombinant Protein
<b>Catalog Number:</b>	12362
<b>Lot Number:</b>	130008
<b>Provided:</b>	200 $\mu$ g of lyophilized protein. Add 1 ml of PBS, or less to obtain your desired concentration.
<b>Molecular Weight:</b>	Appeared as a 65 KD protein (Calculated M.W. is 36.5 KD).
<b>Purity:</b>	>95%
<b>Description:</b>	This protein was designed to preserve the antigenic structure of the CD4 binding site of gp120 while removing other antigenic regions. Resurfaced Stabilized Core 3 (RSC3) is based on the HXB2 Ds12F123 stabilized core. The double mutations bore on RSC3 $\Delta$ 371I/P363N greatly diminishes the binding of CD4bs mAbs to the protein, to a greater extent than RSC3 $\Delta$ 371I. The variable regions 1 - 3 are removed. For more details, please see Wu et al. 2010.
<b>Special Characteristics:</b>	Heavily glycosylated protein. <i>Applications:</i> CD4 binding site (CD4bs) antibody detection by ELISA.
<b>Recommended Storage:</b>	Stable at 4°C for at least one month. Aliquot and store at -80°C for long-term storage.
<b>Contributor:</b>	Drs. Zhi-Yong Yang, Peter Kwong, Gary Nabel and John Mascola
<b>References:</b>	Xueling Wu, Zhi-Yong Yang, Yuxing Li, et al: Rational Design of Envelope Identifies Broadly Neutralizing Human Monoclonal Antibodies to HIV-1. <i>Science</i> , <b>329</b> : 856-861 (2010). <a href="#">Abstract</a>  Rebecca M. Lynch, Lillian Tran, Mark K. Louder, et al: The Development of CD4 Binding Site Antibodies during HIV-1 Infection.: 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. <a href="#">Article</a> . This article details the differences of binding between the 4 RSC3 variants: RSC3, RSC3- $\Delta$ 371I, RSC3- $\Delta$ 371I/P363N and RSC3- $\Delta$ 371I/P363N. Please note

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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.

4 RSC3 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  $\Delta$ 371I/P363N Recombinant Protein (Cat #12362) 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:**

June 08, 2016

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