

# Product Information Sheet for HRP-11236

**Polyclonal Anti-Human CXCR4, Extracellular Loop (IgG fraction of antiserum, Rabbit)**

**Catalog No. HRP-11236**

**Sigma-Aldrich Catalog No. C8352**

**For research use only. Not for use in humans.**

## Contributor:

NIH HIV Reagent Program

## Manufacturer:

Sigma-Aldrich Inc., Saint Louis, Missouri, USA

## Product Description:

HRP-11236 is an IgG fraction of antiserum produced in rabbits immunized with a synthetic peptide corresponding to residues 182 to 196 in the second extracellular loop (EL) of human CXCR4 (UniProt: [P61073](#)). HRP-11236 recognizes human CXCR4 by immunoblotting (40 kDa).

Human immunodeficiency virus (HIV) and related viruses require coreceptors, in addition to CD4, to infect target cells. Among them, CXCR4 (fusin, LESTR or HUMSTR) is a principal coreceptor for T-cell tropic strains of HIV-1 fusion and entry of human white blood cells and belongs to the G-protein coupled receptor 1 family.<sup>1,2</sup> Antibodies to CXCR4 block HIV-1 and HIV-2 fusion and infection of human target cells.<sup>1,3</sup> The amino-terminal domain and the second extracellular loop of CXCR4 serve as HIV binding sites.<sup>3,4</sup>

## Material Provided:

Each vial contains approximately 100 µL of IgG fraction of antiserum in phosphate-buffered saline (PBS) with 0.02% sodium azide as a preservative. The concentration, expressed as mg/mL, is shown on the Certificate of Analysis.

## Packaging/Storage:

HRP-11236 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

## Functional Activity:

HRP-11236 was shown to be reactive in western blot assays (Figure 1). HeLa whole cell lysate can be used as a positive control. For western blot, 0.5 to 1 µg/mL of the primary antibody is recommended. It can also be used in immunohistochemistry.

## Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Polyclonal Anti-Human CXCR4, Extracellular Loop (IgG fraction of antiserum, Rabbit), HRP-11236, contributed by the NIH HIV Reagent Program."

## 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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

## Disclaimers:

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## References:

1. Feng, Y., et al. "HIV-1 Entry Cofactor: Functional cDNA Cloning of a Seven-Transmembrane, G Protein-Coupled Receptor." *Science* 272 (1996): 872-877. PubMed: 8629022.
2. Berson, J. F., et al. "A Seven-Transmembrane Domain Receptor Involved in Fusion and Entry of T-Cell-Tropic Human Immunodeficiency Virus Type 1 Strains." *J. Virol.* 70 (1996): 6288-6295. PubMed: 8709256.
3. Breloet, A., et al. "Role of the First and Third Extracellular Domains of CXCR-4 in Human Immunodeficiency Virus Coreceptor Activity." *J. Virol.* 71 (1997): 4744-4751. PubMed: 9413981.

4. Lu, Z., et al. "Evolution of HIV-1 Coreceptor Usage Through Interactions with Distinct CCR5 and CXCR4 Domains." *Proc Natl Acad Sci USA* 94 (1997): 6426-6431. PubMed: 9177234.

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**Figure 1: Representative Anti-CXCR4 Western Blot**

