



HIV-1 Co-Receptor Detection Set

Cat. No.: PSI-1818



Ψ Specifications

SPECIES REACTIVITY:	Human
IMMUNOGEN:	Rabbit polyclonal antibodies were raised against peptides corresponding to amino acid sequences from each of the corresponding proteins.
TESTED APPLICATIONS:	IF, IHC, WB
APPLICATIONS:	These polyclonal antibodies can be used for detection of Bonzo, CCR3, CCR5, CCR8, Cx3CR1, CXCR4, DC-SIGN and GPR15 by immunoblot at 0.5 - 2 µg/mL. Some of these antibodies can also be used at 1 - 20 µg/mL to detect their respective proteins via immunohistochemistry or immunocytochemistry, and Immunofluorescence.
POSITIVE CONTROL:	<p>1) Bonzo Antibody: Human Spleen Tissue Lysate, Catalog No. 1306</p> <p>CCR3 Antibody: Human Spleen Tissue Lysate, Catalog No. 1306</p> <p>CCR5 Antibody: THP-1 Cell Lysate, Catalog No. 1208</p> <p>CCR8 Antibody: Human Spleen Tissue Lysate, Catalog No. 1306</p> <p>CX3CR1 Antibody: Human Spleen Tissue Lysate, Catalog No. 1306</p> <p>CXCR4 Antibody: HeLa Cell Lysate, Catalog No. 1201</p> <p>DC-SIGN Antibody: Human Placenta Tissue Lysate, Catalog No. 1309</p> <p>GPR15 Antibody: Human Spleen Tissue Lysate, Catalog No. 1306</p>

PURIFICATION:	Antibodies are supplied as affinity chromatography purified IgG.
PHYSICAL STATE:	Liquid
BUFFER:	PBS containing 0.02% sodium azide.
CONCENTRATION:	Antibody 1 mg/mL
STORAGE CONDITIONS:	Stable at 4 °C for three months, store at -20 °C for up to one year.

Ψ Additional Info

USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
-------------------	--

Ψ Background and References

BACKGROUND:	<p>Human immunodeficiency virus (HIV-1) and related viruses such as HIV-2 and SIV require coreceptors to infect target cells. The G protein-coupled receptors CCR3, CCR5 and CXCR4 are the principal receptors for HIV fusion and entry of target cells. CCR3 and CCR5 promote efficient infection of microglia, the major target cells in the CNS. Eotaxin, the CCR3 ligand and an anti-CCR3 antibody inhibited HIV infection of microglia. CCR5 is a principal coreceptor for macrophage- and dual-tropic HIV-1 strains fusion and entry of human white blood cells. The amino-terminal domain and the extracellular loops of CCR5 serve as HIV binding sites. High levels of CCR3 and CXCR4 expression were found on the neurons from both the central and peripheral nervous systems. CXCR4 is a principal coreceptor for T-cell tropic strains of HIV-1 fusion and entry of human white blood cells. CXCR4 is also required for the infection by dual-tropic strains of HIV-1 and mediates CD-4 independent infection by HIV-2. CXCR4 associates with the surface CD4-gp120 complex before HIV enters target cells. Antibodies to CXCR4 block HIV-1 and HIV-2 fusion and infection of human target cells. The amino-terminal domain and the second extracellular loop of CXCR4 serve as HIV binding sites. Another G protein-coupled receptor CCR8 was also found to serve as a coreceptor for diverse T-cell tropic, dual-tropic and macrophage-tropic HIV-1 strains. CCR8 mediates CC chemokine I-309 induced monocyte chemoattraction and HIV-1 envelope fusion and virus infection, which can be prevented by the CCR8 ligand I-309. Other proteins that can function as viral cofactors include Bonzo, CX3CR1, DC-SIGN, and GPR15.</p> <p>For images please see PDF data sheet</p>
REFERENCES:	<p>1) Feng Y, Broder CC, Kennedy PE, et al. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. <i>Science</i> 1996; 272:872-7.</p> <p>2) Deng H, Liu R, Ellmeier W, et al. Identification of a major co-receptor for primary isolates of HIV-1. <i>Nature</i> 1996; 381:661-6.</p> <p>3) Choe H, Farzan M, Sun Y, et al. The beta-chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. <i>Cell</i> 1996; 85:1135-48.</p> <p>4) He J, Chen Y, Farzan M, et al. CCR3 and CCR5 are co-receptors for HIV-1 infection of microglia. <i>Nature</i> 1997; 385:645-9.</p>

ANTIBODIES FOR RESEARCH USE ONLY.

For additional information, visit ProSci's [Terms & Conditions Page](#).