

**Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody**  
**Catalog # AN1737****Specification****Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P61073</a>
Reactivity	Bovine, Chicken
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	39746

**Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody - Additional Information**Gene ID **7852****Other Names**

FB22; HM89; LAP3; LCR1; NPYR; WHIM; CD184; LESTR; NPY3R; NPYRL; HSY3RR; NPYY3R; D2S201E; CXCR4

**Target/Specificity**

The chemokine receptor CXCR4 is a widely expressed G protein-coupled receptor required for development, hematopoiesis, organogenesis, and vascularization. In disease, CXCR4 has been implicated in WHIM syndrome, HIV, and cancers. Regulation of CXCR4 function occurs through phosphorylation at multiple sites in the C-terminal region. These sites have been shown to be phosphorylated after CXCL12 stimulation, and involve several kinases, such as PKC and GRK kinases. After CXCL12 stimulation of HEK293 cells, Ser-324 and Ser-325 become phosphorylated by PKC and GRK6, while Ser-330 and Ser-339 are phosphorylated by only GRK6. In human astroglia cells, Ser-324 and Ser-325 are rapidly phosphorylated in endogenous CXCR4, while Ser-330 was phosphorylated with slower kinetics. In addition, arrestin binding to CXCR4 is driven by this phosphorylation of far C-terminal residues. Thus, site-specific phosphorylation of CXCR4 may be regulated by multiple kinases lead to complex regulation of CXCR4 signaling.

**Dilution**WB~~1:1000  
IHC~~1:100~500**Format**

Antigen Affinity Purified

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

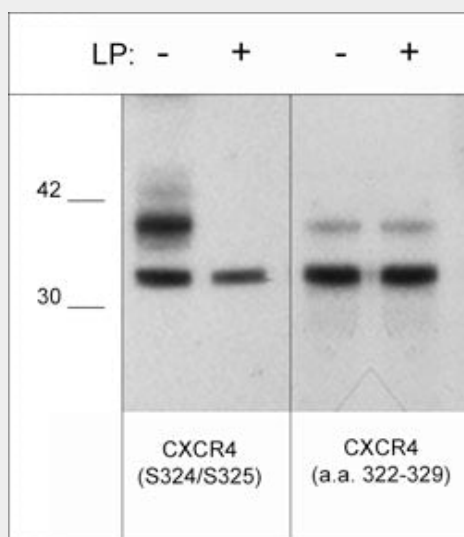
Blue Ice

## Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody - Protocols

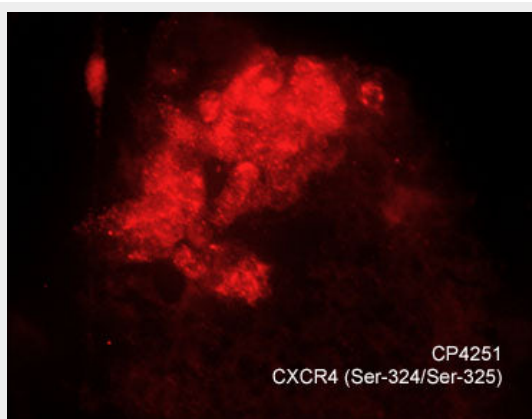
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody - Images



Western blot analysis of human Jurkat cells treated with 100 nM calyculin A for 30 min. then the blots were untreated (-) or treated (+) with lambda phosphatase. The blots were probed with rabbit polyclonals anti-CXCR4 (Ser-324/Ser-325) (left panel) or anti-CXCR4 (a.a. 322-329) (right panel).



Immunocytochemical labeling of CXCR4 in chick pluripotent cells. The cells were labeled with rabbit polyclonal CXCR4 (S324/S325) antibody (CP4251), then detected using appropriate secondary antibody (Red). (Image provided by Dr. Yangqing Lu at the Regenerative Bioscience

Center, University of Georgia).

### **Anti-CXCR4 (Ser-324/Ser-325), Phosphospecific Antibody - Background**

The chemokine receptor CXCR4 is a widely expressed G protein-coupled receptor required for development, hematopoiesis, organogenesis, and vascularization. In disease, CXCR4 has been implicated in WHIM syndrome, HIV, and cancers. Regulation of CXCR4 function occurs through phosphorylation at multiple sites in the C-terminal region. These sites have been shown to be phosphorylated after CXCL12 stimulation, and involve several kinases, such as PKC and GRK kinases. After CXCL12 stimulation of HEK293 cells, Ser-324 and Ser-325 become phosphorylated by PKC and GRK6, while Ser-330 and Ser-339 are phosphorylated by only GRK6. In human astroglia cells, Ser-324 and Ser-325 are rapidly phosphorylated in endogenous CXCR4, while Ser-330 was phosphorylated with slower kinetics. In addition, arrestin binding to CXCR4 is driven by this phosphorylation of far C-terminal residues. Thus, site-specific phosphorylation of CXCR4 may be regulated by multiple kinases lead to complex regulation of CXCR4 signaling.