

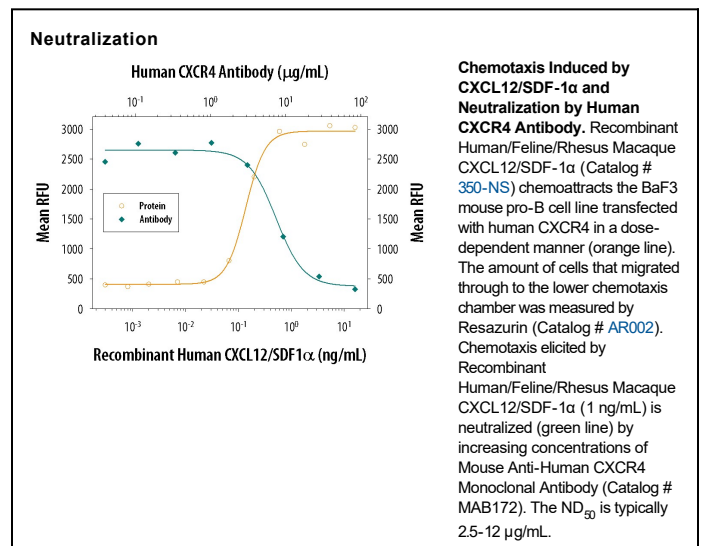
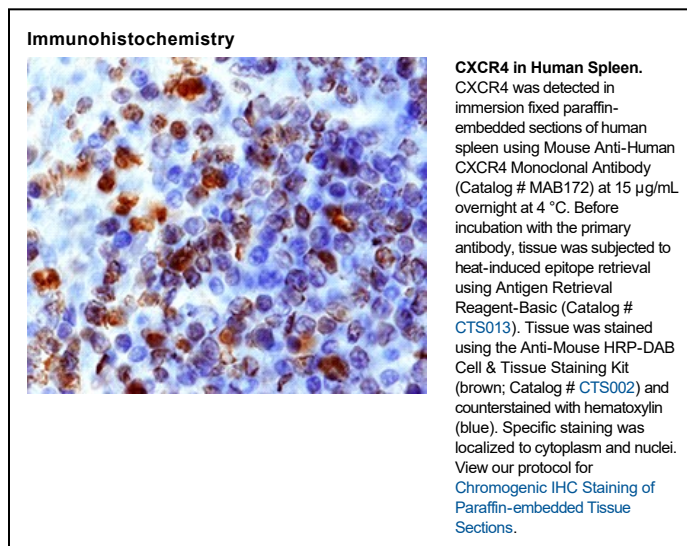
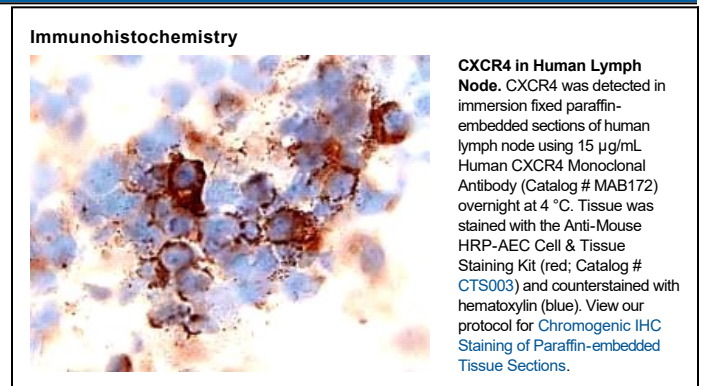
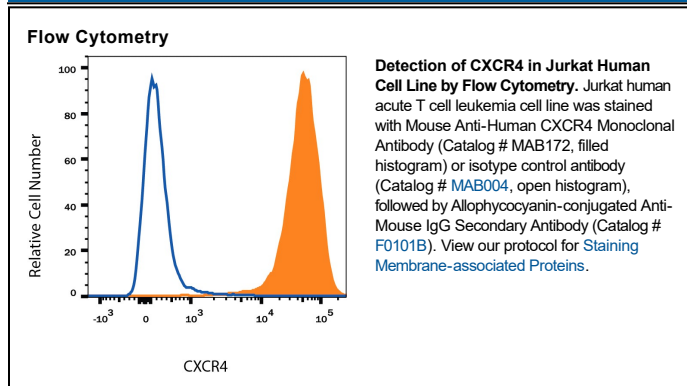
DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CXCR4. It will also react with cells expressing feline CXCR4 but not rat CXCR4.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 44716
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	3T3 cells transfected with human CXCR4
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Neutralization</b>	Measured by its ability to neutralize CXCL12/SDF-1α-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR4. The Neutralization Dose (ND <sub>50</sub> ) is typically 2.5-12 µg/mL in the presence of 1 ng/mL Recombinant Human/Feline/Rhesus Macaque CXCL12/SDF-1α.	

**DATA**



## PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 0.5 mg/mL in sterile PBS.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  
\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## BACKGROUND

CXCR4 is a G-protein-linked seven transmembrane spanning receptor that binds stromal cell-derived factor-1 (SDF-1). CXCR4 acts as a co-factor for T-cell tropic HIV-1 and -2 viral entry into cells. While primarily a membrane protein, CXCR4 undergoes trafficking and internalization in response to stimulation with phorbol esters and ligand (1). Cytoplasmic and nuclear localization of CXCR4 has been observed in colorectal and renal carcinomas (2,3) and it has been used as the basis of prognosis and metastatic state (3,4,5).

### References:

1. Orsini, M.J. et al. (1999) J. Biol. Chem. **274**:31076.
2. Zagzag, D. et al. (2005) Cancer Res. **65**:6178.
3. Speetjens, F.M. et al. (2009) Cancer Microenvironment **2**:1.
4. Wang, L. et al. (2009) Oncology Reports **22**:1333.
5. Amara, S. et al. (2015) Cancer Biomark. **15**:869.