

DESCRIPTION

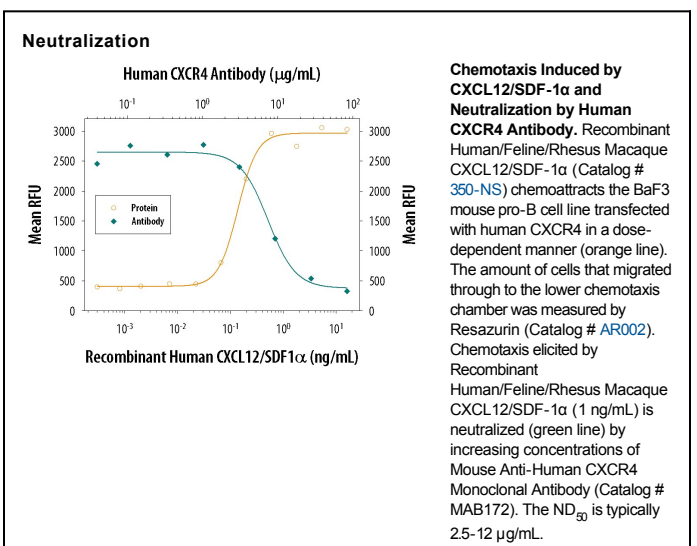
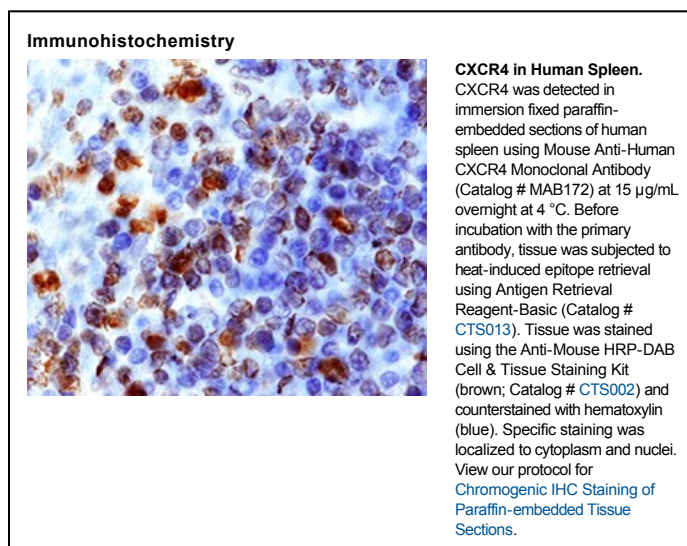
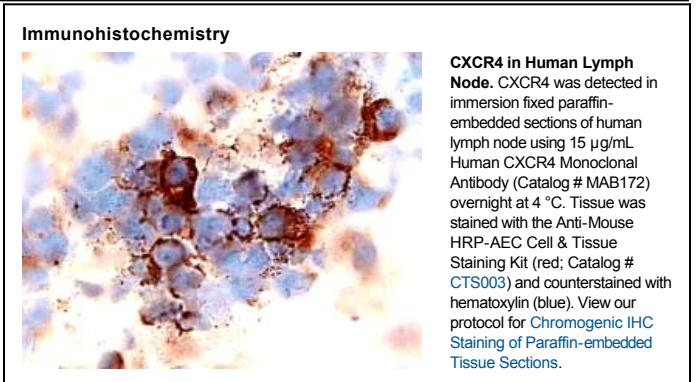
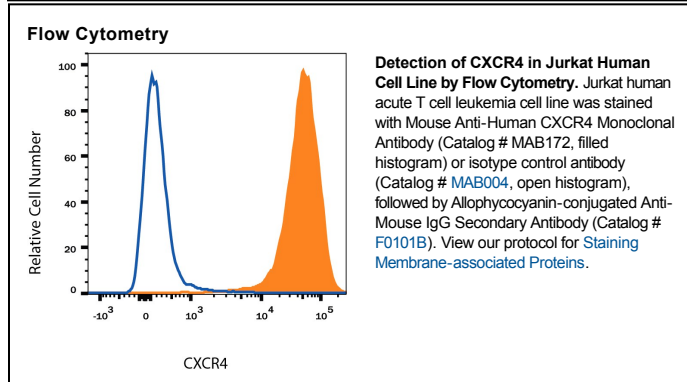
Species Reactivity	Human
Specificity	Detects human CXCR4. It will also react with cells expressing feline CXCR4 but not rat CXCR4.
Source	Monoclonal Mouse IgG _{2B} Clone # 44716
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	3T3 cells transfected with human CXCR4
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	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 ₅₀) 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.