TECHNICAL DATA SHEET

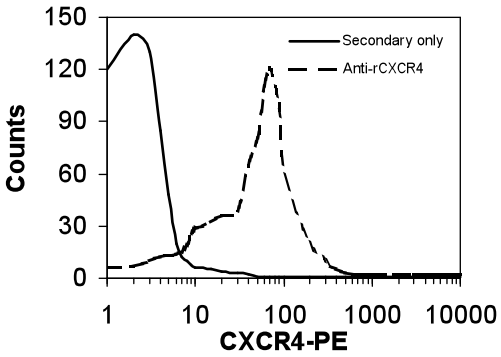
Purified Rabbit Anti-rat CXCR4

Catalog Number: TP503

Lot Number: 010618

Content: Protein A purified rabbit IgG, 200μg, with 0.1% sodium azide, lyophilized.

(Reconstitute to 1 mg/ml by adding 200μl H_2O)



Product Description and Usage: For research use only. This polyclonal antibody, which reacts with both mouse and rat CXCR4, was generated using *E. coli*-expressed N-terminal rat CXCR4, aa 2-38, as an immunogen. This antibody can be used for Flow Cytometry [1] (1:100), immunohistochemistry [2] neutralizing [3], and Western Blot (1:1000)[4].

Cross-reactivity to CXCR4 of other species has not been determined.

Storage Condition: 4°C for short term storage or -20°C in small aliquots for long term storage. Avoid repeated freeze and thaw.

Background: CXCR4 (fusin) is one of the members in the seven-transmembrane G-protein-coupled chemokine receptor family. The full-length cDNA was isolated from a human spleen cDNA library. Its ligand is chemokine stroma-derived factor (SDF). CXCR4 has been proved to be the co-receptor for HIV's binding to CD4 through envelope glycoprotein gp 120. In other cases, CXCR4 can even function as the only receptor for HIV-2's binding to the CD4 – host cells. Mouse monoclonal antibody (12G5) to CXCR4 has been shown to inhibit HIV infectivity and HIV-induced syncytium.

References:

1. Isabelle Petit. et al. G-CSF induces stem cell mobilization by decreasing bone marrow SDF-1 and up-regulating CXCR4. *Nature Immunology* 3, 687 - 694 (2002)
2. Bayasi Guleng. et al. Blockade of the Stromal Cell–Derived Factor-1/CXCR4 Axis Attenuates *In vivo* Tumor Growth by Inhibiting Angiogenesis in a Vascular Endothelial Growth Factor–Independent Manner. *Cancer Research* 65, 5864-5871, July 1, (2005)
3. Hideyasu Sakihama. et al. Stromal Cell–Derived Factor-1 and CXCR4 Interaction Is Critical for Development of Transplant
4. Yongquan Luo, et al. Functional SDF1α/CXCR4 signaling in the developing spinal cord. *Journal of Neurochemistry*. April 2005, 93(2): 452

Torrey Pines Biolabs Inc
360 Glenwood Ave, 2nd Fl, Bldg 7
East Orange, NJ 07017
web:www.chemokine.com

Tel: (973)266-8977
Toll free: (866)383-8144
Fax: (973)266-9983
E-mail:tpbi@chemokine.com