

# Product Data Sheet

## Alexa Fluor® 647 anti-mouse CD184 (CXCR4)

**Catalog # / Size:** 129201 / 25 µg

**Clone:** TG12/CXCR4

**Isotype:** Rat IgG2b, κ

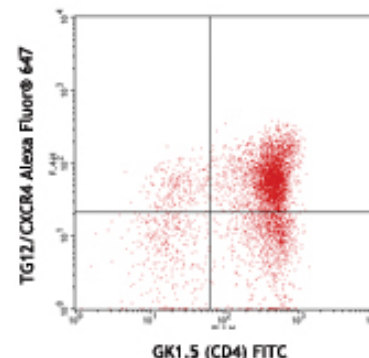
**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



C57BL/6 thymocytes stained with GK1.5 FITC and TG12/CXCR4 Alexa Fluor® 647

## Applications:

**Applications:** FC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.

\*\* Alexa Fluor® 647 is a registered trademark of Molecular Probes, Inc. Alexa Fluor® 647 dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

**Application References:**

1. Thompson BD, *et al.* 2007. *J. Biol. Chem.* 282:9547. (FC) PubMed
2. Kew RP, *et al.* 2012. *J. Immunol.* 188:2380. PubMed.
3. Meechan DW, *et al.* 2012. *PNAS.* 109:18601. PubMed.

**Description:** CXCR4 is a chemokine receptor that binds CXCL12 (SDF1). CXCR4 and CXCL12 play an important role in immune and inflammatory responses through the regulation of cell migration and growth. CXCR4 plays a crucial role in the pathogenesis of several autoimmune diseases, atherosclerosis, rheumatoid arthritis, and wound healing (4, 5). In addition, CXCR4 is the cofactor for fusion and entry of the T cell-tropic form of HIV-1 (6).

**Antigen References:**

- 1) Kucia M, *et al.* *Stem Cells* 23:879-894 2005.
- 2) Muller A, *et al.* *Nature* 410:50-56 2001.
- 3) Prasad A, *et al.* *J Leuko Biol* 82:465-476 2007
- 4) De Klerck B, *et al.* *Arthritis Res Ther* 7:R1208-R1220 2005.
- 5) Rueda P, *et al.* *PloS One* 3:e2543 2008.
- 6) Feng Y, *et al.* *Science* 272:872-876 1996.

### Related Products:

**Product**  
 Alexa Fluor® 647 Rat IgG2b, κ Isotype Ctrl  
 Cell Staining Buffer  
 RBC Lysis Buffer (10X)  
 TruStain fcX™ (anti-mouse CD16/32)

**Clone**  
 RTK4530

93

**Application**  
 FC, ICFC  
 FC, ICC, ICFC  
 FC, ICFC  
 FC



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