## **Product Data Sheet**

## **APC/Fire™ 750 anti-human CD197 (CCR7)**

**Catalog #** / 2366230 / 100 tests

**Size:** 2366225 / 25 tests

**Clone:** G043H7

**Isotype:** Mouse IgG2a, κ

**Immunogen:** CCR7-transfected cells

Reactivity: Human, Non-human primate, Other

**Preparation:** The antibody was purified by affinity

chromatography and conjugated with

APC/Fire™ 750 under optimal

conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and

0.2% (w/v) BSA (origin USA).

Workshop Number: **HCDM** listed

**Concentration:** Lot-specific

Human peripheral blood

lymphocytes were stained with CD3 FITC and CD197 (Clone G043H7) APC/Fire™ 750 (left) or mouse IgG2a, κ APC/Fire™ 750 isotype control (right).

## **Applications:**

**Applications:** Flow Cytometry

Recommended

**Usage:** 

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5  $\mu$ l per million cells in 100  $\mu$ l staining volume or 5  $\mu$ l per 100  $\mu$ l of whole blood.

\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum

emission of 787 nm.

Application Notes:

Additional reported applications (for the relevant formats) include: Western

blotting<sup>1</sup>, immunofluorescence<sup>2</sup>, and immunoprecipitation<sup>1</sup>.

Application References:

Hildreth JE, et al. 1991. Blood 77:121. (IP, WB)
 Beatty WL, et al. 2006. J. Cell Sci. 119:350. (IF)

Description:

CCR7, also known as CD197, is a chemokine receptor that binds CCL19 and CCL21. CCR7 and its ligands link innate and adaptive immunity by affecting interactions between T cells and dendritic cells and their downstream effect. Naïve T cells enter the lymph node through high endothelial venules, which express CCL21. Dendritic cells and macrophages enter the lymph node through afferent lymphatics. The encounter of T cells and dendritic cells in the T cell zone is CCR7-dependent. In addition, during immunological surveillance, B cells recirculate between B-cell-rich compartments (follicles or B cell zones) in secondary lymphoid organs, surveying for antigen. After antigen binding, B cells move to the boundary of B and T zones to interact with T-helper cells; this B cell migration is directed by CCR7 and its ligands. CCR7-positive cancer cell expression has been associated with lymph node metastasis.

## Antigen **References:**

- 1. Yanagihara S, et al. 1998. J. Immunol. 161:3096.
- 2. Charo IF, et al. 2006. N. Engl. J. Med. 354:610.
- 3. Reif K, et al. 2002. Nature 416:94.

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  Nakata B, et al. 2008. Oncology 74:69.
  Brodie T. et al. 2013. Cytometry A. 6: 530-2. PubMed
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