Product name: Anti-CCR5 antibody [T21/8] ab110103

Description: Mouse monoclonal [T21/8] to CCR5

Host species: Mouse

Tested applications: Suitable for: WB, IP, ELISA, IHC-P, Flow Cyt

Species reactivity: Reacts with: Human

Immunogen: Human CCR5

Positive control: Human tonsil tissue. Normal Human peripheral blood cells.

Form: Liquid

Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer: pH: 7.20
Preservative: 0.09% Sodium azide
Constituent: PBS

Purity: Protein G purified

Clonality: Monoclonal

Clone number: T21/8

Isotype: IgG1

Light chain type: kappa

Applications

Our Abpromise guarantee covers the use of ab110103 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<tr>
<th>Application</th>
<th>Notes</th>
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<tr>
<td>WB</td>
<td>Use at an assay dependent concentration. Predicted molecular weight: 41 kDa.</td>
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Function
Receptor for a number of inflammatory CC-chemokines including MIP-1-alpha, MIP-1-beta and RANTES and subsequently transduces a signal by increasing the intracellular calcium ion level. May play a role in the control of granulocytic lineage proliferation or differentiation. Acts as a coreceptor (CD4 being the primary receptor) for HIV-1 R5 isolates.

Tissue specificity
Highly expressed in spleen, thymus, in the myeloid cell line THP-1, in the promyeloblastic cell line KG-1A and on CD4+ and CD8+ T-cells. Medium levels in peripheral blood leukocytes and in small intestine. Low levels in ovary and lung.

Involvement in disease
Genetic variation in CCR5 is associated with susceptibility to diabetes mellitus insulin-dependent type 22 (IDDM22) [MIM:612522]. A multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical features are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels.

Sequence similarities
Belongs to the G-protein coupled receptor 1 family.

Post-translational modifications
Sulfated on at least 2 of the N-terminal tyrosines. Sulfation contributes to the efficiency of HIV-1 entry and is required for efficient binding of the chemokines, CCL3 and CCL4. O-glycosylated, but not N-glycosylated. Ser-6 appears to be the major site. Also sialylated glycans present which contribute to chemokine binding. Thr-16 and Ser-17 may also be glycosylated and, if so, with small moieties such as a T-antigen.
Palmitoylation in the C-terminal is important for cell surface expression, and to a lesser extent, for HIV entry.
Phosphorylation on serine residues in the C-terminal is stimulated by binding CC chemokines especially by APO-RANTES.

Cellular localization
Cell membrane.

Target

Function
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Images

ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CCR5 antibody [T21/8]**
(ab110103)

ab110103 at 20µg/ml staining CCR5 in formalin-fixed, paraffin-embedded Human tonsil tissue.

**Flow Cytometry - Anti-CCR5 antibody [T21/8]**
(ab110103)

Staining of normal Human peripheral blood cells with 0.25µg of purified mouse IgG1, K isotype control (open histogram) or 0.25 µg of ab110103 (colored histogram), followed by biotin Anti-mMouse IgG and SAv-PE.

Cells in the lymphocyte gate were used for analysis.

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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