Technical Data Sheet

InVivoMAb anti-mouse CCR5 (CD195)

Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

Lot Specific Information

Lot Number: **Lot Specific***
Volume: **Lot Specific***
Concentration: **Lot Specific* (generally 4 to 11 mg/ml) ***
Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number:	**BE0470**
Clone:	**C5Mab-2**
Isotype:	Rat IgG2b, κ
Recommended Isotype Control(s):	InVivoMAb rat IgG2b isotype control, anti-keyhole limpet hemocyanin
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Mouse CCR5 expressing CHO-K1 cells
Reported Applications:	Flow cytometry For details on *in vivo* applications, please contact technicalservice@bioxcell.com
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/μg) Determined by LAL gel clotting assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtered
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein G
RRID:	
Molecular Weight:	150 kDa

Description

The C5Mab-2 monoclonal antibody reacts with mouse CC chemokine receptor type-5 (CCR5), also known as MCP-1 receptor, CKR5, and CD192. CCR5 is a seven-pass transmembrane protein from the GPCR family, and is expressed on dendritic cells (DCs), T cells (including Tregs), macrophages, eosinophils, NK cells, myeloid-derived suppressor cells (MDSCs), and some non-hematopoietic cells such as epithelial cells, endothelial cells, fibroblasts (including vascular smooth muscle), and microglia. The natural agonistic, or activating, ligands of CCR5 include CCL3/MIP-1 alpha, CCL3L1, CCL4 (MIP-1 beta), CCL5/RANTES, CCL8, CCL11, CCL13, and CCL16. Notably, CCL7/MCP-3 binds to CCR5 as a natural antagonist/deactivating ligand, thereby blocking receptor signaling and influencing inflammation and immune responses in a complex and context-dependent manner. CCR5 receptor activation regulates the migration and activation of lymphocytes, immune surveillance, tumorigenesis, and inflammation, including the pathogenesis of inflammatory diseases. To facilitate the recruitment of the immune cells to inflammation sites, CCR5 directs the process of chemotaxis (immune cell migration) along the chemokine gradient. In neurobiology, CCR5 acts as a suppressor of learning, memory, neuronal plasticity, and synaptic connections in the brain. CCR5 is well documented to act as a common coreceptor for HIV-1, and CCR5 antagonists are reported to provide protection against HIV-1. In vivo studies with mouse models of traumatic brain injury (TBI) have linked CCR5 knockdown to reduced learning deficit and improvement of cognitive function. In view of the pleiotropic effects of CCR5, its antagonists, including monoclonal antibodies, have emerged as promising tools for experimental therapeutics of tumors and inflammatory diseases.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/be0470?bxcs=9k1b3a#tab_references or scan the QR code below.

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