Technical Data Sheet

InVivoMAb anti-mouse CCL5 (RANTES)

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:	**BE0449**
Clone:	**R6G9**
Isotype:	Mouse IgG1, κ
Recommended Isotype Control(s):	InVivoMAb mouse IgG1 isotype control, unknown specificity
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	A synthetic peptide corresponding to amino acids 78-91 of mouse CCL5
Reported Applications:	*in vivo* neutralization of CCL5 *in vitro* neutralization of CCL5 Functional assay ELISA
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
Molecular Weight:	150 kDa

Description

The R6G9 monoclonal antibody reacts with mouse CCL5 (C-C Motif Chemokine Ligand 5) also referred to as RANTES. This antibody does not cross-react with other murine CCLs such as CCL2 (MCP1), CCL3 (MIP1α), CXCL9 (MIG), or CXCL10 (IP-10). CCL5 is an 8 kDa ligand protein that is expressed by endothelial cells, platelets, smooth muscle cells, T cells, and macrophages. CCL5 exhibits the greatest affinity for CCR5, and its other receptors include CCR1, CCR3, and CCR4. Given the widespread expression of these CCRs in various cell types, CCL5 serves as a chemoattractant for several immune cell types, including monocytes, mast cells, dendritic cells, natural killer cells, eosinophils, basophils, CD4 T cells, CD8 T cells, and B cells. In T cell biology, CCL5 regulates T-cell migration to inflammatory sites and T-cell differentiation through Th1 cell recruitment. CCL5 also facilitates the release of histamine from basophils and activates eosinophils. CCL5 acts as an agonist of the G protein-coupled receptor GPR75, thereby playing a role in neuron survival through activation of downstream signaling pathways involving the PI3K/AKT and MAP kinases, as well as insulin secretion by islet cells. Several reports documented that CCL5 plays protective roles following neuronal damage, including stroke (brain trauma) and Alzheimer's disease (AD). CCL5 also plays a role in reducing oxidative stress, neuroimmunology, regulating ATP generation and synaptic complex formation in hippocampal neurons, axon regeneration, and brain energy metabolism. In cancer, the CCL5-CCRs signaling influences both the growth of tumors and antitumor immune responses, thereby suggesting CCL5 as an attractive target for immune checkpoint blocking (ICI) experimental therapeutics research. The R6G9 monoclonal antibody has been documented for in vitro and in vivo neutralization of CCL5 in various experiments involving immunology, infections,

neuroscience, and other research areas.

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/be0449?bxcs=9k1b3a#tab_references or scan the QR code below.

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