Technical Data Sheet

RecombiMAb anti-mouse Ly6G

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:	**CP091**
Clone:	**1A8-CP091**
Isotype:	Mouse IgG2c, κ
Recommended Isotype Control(s):	InVivoMAb mouse IgG2c isotype control, anti-dengue virus
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	EL4J cells transfected with Ly6G
Reported Applications:	*in vivo* neutrophil depletion *in vivo* MDSC depletion Western Blot Immunofluorescence* Immunohistochemistry (paraffin)* Immunohistochemistry (frozen)* Flow cytometry* *Reported for the original rat IgG2a 1A8 antibody
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from CHO cell supernatant in an animal-free facility
Purification:	Protein G
Aggregation:	<5% Determined by SEC
RRID:	
Molecular Weight:	150 kDa

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

The 1A8-CP091 monoclonal antibody is a recombinant Fc-engineered chimeric version of the original 1A8 antibody. The variable domain sequences are identical to the original 1A8 hybridoma-derived antibody, but the constant region sequences

have been switched from rat IgG2a to mouse IgG2c. Recombinant versions of clone 1A8 have demonstrated superior Ly6+ cell depletion in peripheral blood, spleen and bone marrow compared to the hybridoma-derived material. Studies have also shown mouse strain-specific differences in the efficiency of anti-Ly6G 1A8 neutrophil depletion with C57/BL mice showing significant reduction in Ly6+ cell depletion compared to BALB/c mice. Mouse strains such as C57Bl/6, C57Bl/10, SJL, and NOD mice possess the Igh1-b allele resulting in only the expression of the IgG2c isotype. Mouse strains such as BALB/c and Swiss Webster mice possess the Igh1-a allele which results in only the expression of the IgG2a isotype. It is important to consider matching the Ig-haplotype of the receiving mice to the isotype of the injected antibody to avoid eliciting undesired immune responses. 1A9-CP091 has an effector function competent Fc domain allowing for activation of FcγRs to trigger antibody-dependent cellular cytotoxicity (ADCC), antibody-dependent cellular phagocytosis (ADCP), complement-dependent cytotoxicity (CDC) and opsonization to promote target cell depletion. Additionally, species matched chimeric antibodies result in less immunogenicity and formation of anti-drug antibodies (ADAs) than xenogenic antibodies in animal models. The 1A8-CP091 monoclonal antibody reacts with mouse Ly6G, a 21-25 kDa member of the Ly-6 superfamily of GPI-anchored cell surface proteins with roles in cell signaling and cell adhesion. Ly6G is expressed differentially during development by cells in the myeloid lineage including monocytes, macrophages, granulocytes, and neutrophils. Monocytes typically express Ly6G transiently during development while mature granulocytes and peripheral neutrophils retain expression making Ly6G a good cell surface marker for these populations. Unlike the RB6-8C5 antibody, the 1A8-CP091 antibody reacts specifically with mouse Ly6G with no reported cross reactivity with mouse Ly6C. References: Pollenus, Emilie et al. “Limitations of neutrophil depletion by anti-Ly6G antibodies in two heterogenic immunological models.” Immunology letters vol. 212 (2019): 30-36. doi:10.1016/j.imlet.2019.06.006

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/cp091?bxcs=9k1b3a#tab_references or scan the QR code below.

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