

Technical Data Sheet



RecombiMAb anti-mouse PD-1 (CD279) (D265A)

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://bxc.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

| | |
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| Catalog Number: | CP151 |
| Clone: | RMP1-14-CP151 |
| Isotype: | Mouse IgG2a, κ |
| Recommended Isotype Control(s): | RecombiMAb mouse IgG2a (D265A) isotype control, anti-hen egg lysozyme |
| Recommended Dilution Buffer: | InVivoPure pH 7.0 Dilution Buffer |
| Mutations: | D265A |
| Immunogen: | Syrian Hamster BKH cells transfected with mouse PD-1 cDNA |
| Reported Applications: | <i>in vivo</i> blocking of PD-1/PD-L signaling* *Reported for the original rat IgG2a RMP1-14 antibody |
| Formulation: | PBS, pH 7.0 Contains no stabilizers or preservatives |
| Purity: | >95% Determined by SDS-PAGE |
| Sterility: | 0.2 μM filtered |
| Production: | Purified from CHO cell supernatant in an animal free facility |
| Purification: | Protein G |
| Aggregation: | <5% Determined by DLS |
| 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 RMP1-14-CP151 monoclonal antibody is a chimeric version of the original RMP1-14 antibody. The variable domain sequences are identical to the original RMP1-14 but the constant region sequences have been switched from rat IgG2a to mouse IgG2a. The RMP1-14-CP151 antibody also contains a D265A mutation in the Fc fragment rendering it unable to bind to endogenous Fcγ receptors. RMP1-14-CP151 reacts with mouse PD-1 (programmed death-1) also known as CD279. PD-1 is a 50-55 kDa cell surface receptor encoded by the Pdc1 gene that belongs to the CD28 family of the Ig superfamily. PD-1 is transiently expressed on CD4 and CD8 thymocytes as well as activated T and B lymphocytes and myeloid cells. PD-1 expression declines after successful elimination of antigen. Additionally, Pdc1 mRNA is expressed in developing B lymphocytes during the pro-B-cell stage. PD-1's structure includes a ITIM (immunoreceptor tyrosine-based inhibitory motif) suggesting that PD-1 negatively regulates TCR signals. PD-1 signals via binding its two ligands, PD-L1 and PD-L2 both members of the B7 family. Upon ligand binding, PD-1 signaling inhibits T-cell activation, leading to reduced proliferation, cytokine production, and T-cell death. Additionally, PD-1 is known to play key roles in peripheral tolerance and prevention of autoimmune disease in mice as PD-1 knockout animals show dilated cardiomyopathy, splenomegaly, and loss of peripheral tolerance. Induced PD-L1 expression is common in many tumors including squamous cell carcinoma, colon adenocarcinoma, and breast adenocarcinoma. PD-L1 overexpression results in increased resistance of tumor cells to CD8 T cell mediated lysis. In mouse models of melanoma, tumor growth can be transiently arrested via treatment with antibodies which block the interaction between PD-L1 and its receptor PD-1. For these reasons anti-PD-1 mediated immunotherapies are currently being explored as cancer treatments.

Shelf-Life and Storage

Store at the stock concentration at 4°C. **Do not freeze.**

All Bio X Cell antibodies have a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended. 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://bxc.com/faqs>.

Protocol Information

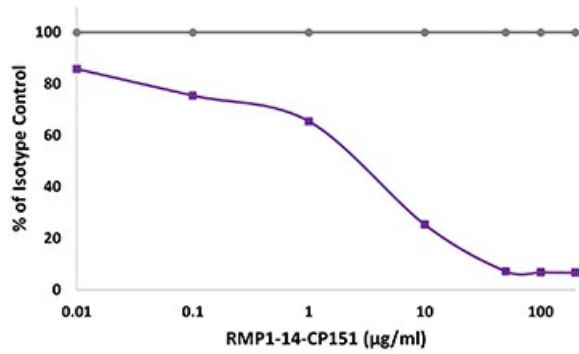
Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit <https://bxc.com/product/recombimab-anti-mouse-pd-1-cd279-d265a#references> or scan the QR code below.

Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail technicalservice@bioxcell.com.



RecombiMAb anti-mouse PD-1 (CD279) (D265A) blocks the binding of PD-1 to PD-L1. Mouse PD-L1 was immobilized on a plate and incubated with mouse PD-1 and the RMP1-14-CP151 antibody. Bound PD-1 was quantified with an HRP conjugate system as absorbance @450 nm. The RMP1-14-CP151 values (purple squares) were normalized to the isotype control antibody values (grey circles).

Bio X Cell, Inc.
<https://bxcell.com>
+1-866-787-3444
customerservice@bioxcell.com

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