

Anti-PD-1 (RMP1-14)

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Product Specific Citations:

[Benguigui et al. Interferon-stimulated neutrophils as a predictor of immunotherapy response. Cancer Cell. 4:S1535-6108\(23\)00433-6.](#)

[Wu et al. Rational design of synthetically tractable HDAC6/HSP90 dual inhibitors to destroy immune-suppressive tumor microenvironment. Journal of Advanced Research \(2023\)](#)

[Kauffman et al. PSGL-1 Blockade Induces Classical Activation of Human Tumor-Associated Macrophages. Cancer Research Communications \(2023\)](#)

[Liang et al. SIX4 Controls STING Expression Enhancing anti-PD-1 Efficacy. bioRxiv \(2023\)](#)

[Chen et al. A magneto-activated nanoscale cytometry platform for molecular profiling of small extracellular vesicles. Nature Communications \(2023\)](#)

[Chuah et al. Uncoupling immune trajectories of response and adverse events from anti-PD-1 immunotherapy in hepatocellular carcinoma. Journal of Hepatology \(2022\)](#)

[Liu et al. PD-1 Blockade Restores the Proliferation of Peripheral Blood Lymphocyte and Inhibits Lymphocyte Apoptosis in a BALB/c Mouse Model of CP BVDV Acute Infection. Frontiers in Immunology \(2021\)](#)

Bio X Cell:

ichorbio's anti-PD-1 (RMP1-14) antibody is [up to 50% cheaper](#) for academia & non-profits and [up to 68% cheaper](#) for industry than the equivalent low endotoxin version from Bio X Cell (BE0146). ICH1132UL is up to 7% cheaper for academia and up to 40% cheaper for industry compared to Bio X Cell's ultra-low endotoxin version (BP0146).

ichorbio Benefits:

ichorbio's anti-PD-1 In Vivo Antibody - Low Endotoxin (RMP1-14) is manufactured in a cGMP compliant facility. ichorbio has the following options:

- Low Endotoxin: <1EU/mg
- Ultra low endotoxin:<0.5EU/mg
- Extremely low endotoxin: 0.05EU/mg
- [5mg/ml concentration](#)
- [Mouse anti-mouse PD-1 \(RMP1-14\)](#)
- [Mouse anti-mouse PD-1 \(RMP1-14\) Fc Silenced.](#)

- Click [here](#) for ichorbio's RMP1-14 antibodies and [here](#) to view ichorbio's complete list of anti-PD-1 antibodies and biosimilars.

ichorbio: the best antibodies for *in vivo* research.

Related Products

Isotype Control:

[Rat IgG2a In Vivo Isotype Control - Low Endotoxin \[1-1\] \(ICH2244\)](#)

Mouse anti Mouse version:

[Mouse Anti-Mouse PD-1 Antibody \(RMP1-14\) \[ICH1182\]](#)

Mouse anti-mouse Fc Silenced version:

[Mouse Anti-Mouse PD-1 Antibody \(RMP1-14\) D265A \[ICH1182D265A\]](#)

Antibodies against the same target:

[Anti-PD-1 In Vivo Antibody - Low Endotoxin \[29F.1A12\] \(ICH1091\)](#)

Product Information

Size:

ichorbio's RMP1-14 *in vivo* antibody is available in the following sizes: 5mg, 25mg, 50mg and 100mg ichorbio regularly manufactures bulk multi-gram amounts of our anti-PD-1 RMP1-14 clone - please contact us for pricing.

Target:

PD-1

Clone:

RMP1-14

Isotype:

Rat IgG2a

Other Names:

Programmed cell death protein 1, Pcd1, CD279

Uniprot:

[Q02242](#)

Host:

Rat

Species Reactivity:

Mouse, Rat

Specificity:

Anti-PD-1 In Vivo Antibody - Low Endotoxin (RMP1-14) recognizes an epitope on Mouse PD-1

Purification Method:

This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype.

Antigen Distribution:

Subset of double negative thymocytes, activated T and B cells

Background:

CD279, also known as programmed death-1 (PD-1) is a 50-55 kD immunoglobulin superfamily member. PD-1 is expressed on a subset of CD4-CD8- thymocytes, and on activated T and B cells. The PD-1 ligands, PD-L1 (also known as B7-H1) and PD-L2 (B7-DC), are members of the B7 immunoglobulin superfamily. This RMP1-14 antibody has been reported to block the binding of PD-1 to its ligands (B7-H1 and B7-DC) and to inhibit T cell proliferation and cytokine production.

Immunogen:

Mouse PD-1 transfected BHK cells

Concentration:

1.0 - 5.0 mg/ml

Formulation:

0.01 M phosphate buffered saline (PBS) pH 7.2, 150 mM NaCl with no carrier protein, potassium or preservatives added. BSA and Azide free.

Purity:

>95% by SDS-PAGE and HPLC >98% by SDS-PAGE and HPLC

Endotoxin:

? 1.0 EU/mg as determined by the LAL method

? 0.75 EU/mg as determined by the LAL method

<0.05 EU/mg as determined by the LAL method

Aggregation:

Aggregation level ? 5%

Aggregation level ? 1%

IMPACT Pathogen Test:

We use the IMPACT test generated by IDEXX Laboratories to guarantee our Ultra Low & Extremely Low Endotoxin antibodies are pathogen free. Our rat antibodies are tested for:

- Mycoplasma spp
- Mycoplasma pulmonis
- Pneumonia virus of mice
- Kilham's rat virus
- Toolan's H1 virus
- Rat parvovirus
- Lymphocytic choriomeningitis virus
- Rat cytomegalovirus
- Sendai virus
- Rat coronavirus
- Sialodacryoadenitis virus
- Rat minute virus
- Seoul virus
- Mouse adenovirus
- Reovirus 3
- Rat theilovirus

Storage:

This antibody is stable for at least 4 weeks when stored at 2-8°C. For long term storage, aliquot in working volumes without diluting and store at – 20°C or -80°C. Avoid repeated freeze thaw cycles.

Applications:

Western Blot, Blocking, Flow Cytometry, Functional Assays

How much RMP1-14 to use *in vivo*:

Blocking: We recommend using between 2.50 or 7.50 mg/kg when performing *in vivo* research using ichorbio's PD-1 low endotoxin antibody clone RMP1-14. This range is based off the most recent publication data using the RMP1-14 clone *in vivo*. Each investigator should determine their own optimal working dilution for specific applications.

Use:

Products are for research use only.

Alternative Names:

- CD279 antibody
- CD279 antigen antibody
- hPD 1 antibody
- hPD 1 antibody
- hPD-1 antibody
- hSLE1 antibody
- PD 1 antibody
- PD-1 antibody
- PD1 antibody
- PDCD 1 antibody
- PDCD1 antibody
- Programmed cell death 1 antibody
- Programmed cell death 1 protein antibody
- Programmed cell death protein 1 antibody
- Protein PD 1 antibody
- Protein PD-1 antibody
- SLEB2 antibody
- Systemic lupus erythematosus susceptibility 2 antibody