

InVivoPlus anti-mouse PD-1 (CD279)



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://bxccl.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:	BP0273
Clone:	29F.1A12
Isotype:	Rat IgG2a
Recommended Isotype Control(s):	InVivoPlus rat IgG2a isotype control, anti-trinitrophenol
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Recombinant PD-1-Ig fusion protein <i>in vivo</i> blocking of PD-1/PD-L signaling <i>in vitro</i> PD-1 neutralization Immunohistochemistry (frozen) Immunofluorescence Western blot Flow cytometry
Reported Applications:	PBS, pH 7.0 Contains no stabilizers or preservatives
Formulation:	<1EU/mg (<0.001EU/μg) Determined by LAL gel clotting assay
Endotoxin:	>95% Determined by SDS-PAGE
Purity:	0.2 μM filtered
Sterility:	Purified from tissue culture supernatant in an animal free facility
Production:	Protein G
Purification:	<5% Determined by DLS
Aggregation:	AB_2687796
RRID:	150 kDa
Molecular Weight:	

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 29F.1A12 monoclonal antibody 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 *Pdcd1* 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, *Pdcd1* 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

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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. Like the RMP1-14 and J43 antibodies the 29F.1A12 antibody has been shown to block the binding of PD-1 to its ligands *in vivo*.

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 bxc.com/faq.

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/invivoplus-anti-mouse-pd-1-cd279/#references> or scan the QR code below.

