Technical Data Sheet

FlowMAb APC 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://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:	**FM0273-APC**
Clone:	**29F.1A12™**
Isotype:	Rat IgG2a
Conjugation:	APC
Excitation Source:	Red 627-640 nm
Excitation Max:	651 nm
Emission Max:	660 nm
Recommended Isotype Control(s):	FlowMAb APC rat IgG2a isotype control, anti-trinitrophenol
Immunogen:	Recombinant PD-1-Ig fusion protein
Reported Applications:	Immunohistochemistry (frozen) Immunofluorescence Flow cytometry
Formulation:	PBS, pH 7.0 Contains 0.09% Sodium Azide
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein G
RRID:	AB_2687796

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 an 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. This allophycocyanin (APC)-conjugated version of the antibody is useful for flow cytometry.

Storage

Store at the stock concentration at 4°C and protected from prolonged exposure to light . **Do not freeze.**

Protocol Information

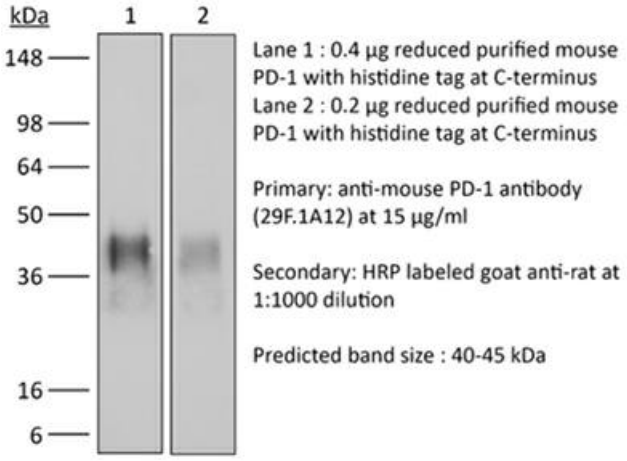
It is recommended that the reagent be carefully titrated for optimal performance in the assay of interest.

Application References

Binding Validation

For a complete list of references, visit https://bioxcell.com/fm0273-apc?bxcs=9k1b3a#tab_references or scan the QR code below.

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



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