

Technical Data Sheet

FlowMAb FITC anti-mouse PD-1 (CD279)



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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-FITC
Clone: 29F.1A12™
Isotype: Rat IgG2a
Conjugation: FITC
Excitation Source: Blue 488 nm
Excitation Max: 494 nm
Emission Max: 518 nm
Recommended Isotype Control(s): FlowMAb FITC 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](https://abnova.com/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 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 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 fluorescein isothiocyanate (FITC)-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.

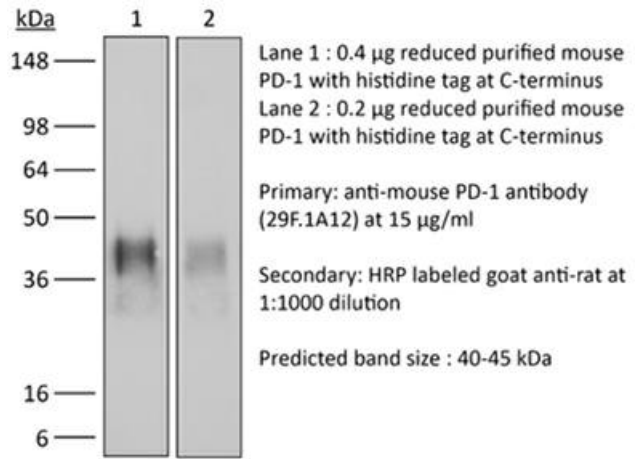
Application References

Binding Validation

For a complete list of references, visit https://bioxcell.com/fm0273-fitc?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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