

CD279 (PD-1) Monoclonal Antibody (MIH4), PE, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MIH4
Conjugate	PE
Excitation/Emission Max	565/576 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10736473

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	31 Publications

Product Specific Information

Description: The MIH4 monoclonal antibody reacts with the human PD-1 (programmed death-1), a 55 kDa member of the immunoglobulin superfamily. PD-1 contains the immunoreceptor tyrosine-based inhibitory motif (ITIM) and plays a key role in peripheral tolerance and autoimmune disease. PD-1 is expressed predominantly on activated T and B lymphocytes. Two novel members of the B7 family have been identified as the PD-1 ligands, PD-L1 (B7-H1) and PD-L2 (B7-DC). Evidence reported to date suggests overlapping functions for these two PD-1 ligands and their constitutive expression on some normal tissues and upregulation on activated antigen-presenting cells. The MIH4 antibody recognizes a different epitope than antibody clones J105.

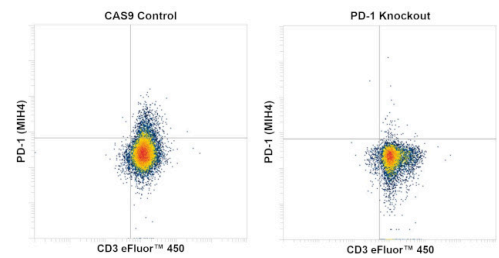
Applications Reported: This MIH4 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This MIH4 antibody has been pre-titrated and tested by flow cytometric analysis of PHA-stimulated normal human peripheral blood cells. This can be used at 5 µL (0.5 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

Excitation: 488-561 nm; **Emission:** 578 nm; **Laser:** Blue Laser, Green Laser, Yellow-Green Laser.

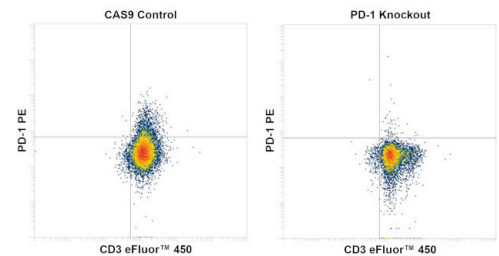
Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD279 (PD-1) Monoclonal Antibody (MIH4), PE, eBioscience™



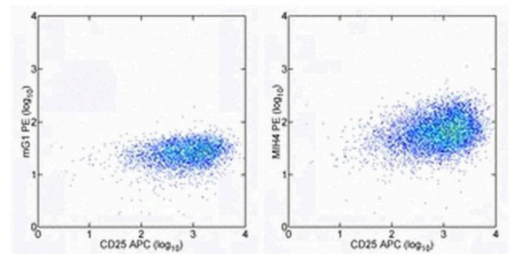
CD279 (PD-1) Antibody (12-9969-42)

Antibody clone (MIH4) specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. Loss of signal was observed for target protein in MIH4 KO cells (left) compared to the control Cas9 cells (right) using CD279 antibody (MIH4). {KO}



CD279 (PD-1) Antibody (12-9969-42) in Flow

Knockout of CD279 (PD-1) was achieved by CRISPR-Cas9 genome editing using LentiArray™ Lentiviral sgRNA (Product # A32042, Assay ID CRISPR816583_LV) and LentiArray Cas9 Lentivirus (Product # A32064). For Flow cytometry analysis, Jurkat CD279 Knock out cells and Jurkat Cas9 control cells were treated with 1 µg/mL PHA and 50 ng/mL PMA for 48 hrs, stained with 0.3 µg CD3 Monoclonal Antibody (UCHT1), eFluor™ 450, eBioscience™ (Product # 48-0038-42) and 0.5 µg CD279 (PD-1) Monoclonal Antibody (MIH4), PE, eBioscience™ (Product # 12-9969-42). Loss of signal was observed in the CD279 KO cells (right) but not in the control Cas9 cells (left). Viable cells were used for analysis, as determined by Fixable Viability Dye eFluor™ 780 (Product # 65-0865-18).



CD279 (PD-1) Antibody (12-9969-42) in Flow

Staining of 3-day PHA-stimulated human peripheral blood cells with Anti-Human CD25 APC (Product # 17-0259-42) and Mouse IgG1 K Isotype Control PE (Product # 12-4714-81) (left) or Anti-Human CD279 (PD-1) PE (right). Cells in the lymphocyte gate were used for analysis.

View more figures on thermofisher.com

Flow Cytometry (31)

<p>Nature communications</p> <p>PRDM1/BLIMP1 induces cancer immune evasion by modulating the USP22-SPI1-PD-L1 axis in hepatocellular carcinoma cells.</p> <p>"12-9969-42 was used in Flow cytometry/Cell sorting to demonstrate that the PRDM1-USP22-SPI1 axis regulates PD-L1 levels, resulting in infiltrated CD8+ T cell exhaustion."</p> <p>Authors: Li Q,Zhang L,You W,Xu J,Dai J,Hua D,Zhang R,Yao F,Zhou S,Huang W,Dai Y,Zhang Y,Baheti T,Qian X,Pu L,Xu J,Xia Y,Zhang C,Tang J,Wang X</p>	<p>Year 2022</p> <p>Species Human Mouse</p> <p>Dilution 1:200 1:200</p>
<p>eLife</p> <p>Molecular features underlying differential SHP1/SHP2 binding of immune checkpoint receptors.</p> <p>"12-9969-42 was used in Flow cytometry/Cell sorting to provide a molecular interpretation of the SHP1/SHP2-binding specificities of PD-1 and BTLA, with implications for the mechanisms of a large family of therapeutically relevant receptors."</p> <p>Authors: Xu X,Masubuchi T,Cai Q,Zhao Y,Hui E</p>	<p>Year 2021</p> <p>Species Human</p> <p>Dilution 1:100</p>

View more Flow references on thermofisher.com

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.