TECHNICAL DATA SHEET

PE Anti-Mouse CD279 (PD-1) (J43.1)

Catalog Number: 50-9985

PRODUCT INFORMATION

Contents: PE Anti-Mouse CD279 (PD-1) (J43.1)

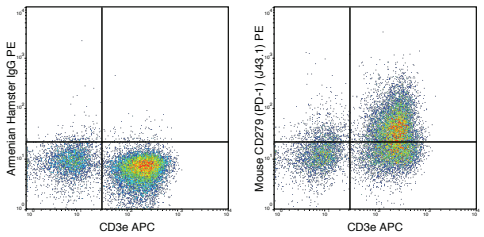
Isotype: Armenian Hamster IgG

Concentration: 0.2 mg/mL

Clone: J43.1

Reactivity: Mouse

Formulation: 10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH7.2



C57Bl/6 splenocytes were stimulated with ConA and then stained with APC Anti-Mouse CD3e (20-0031) and 0.5 ug PE Anti-Mouse CD279 (PD-1) (50-9985) (right panel) or 0.5 ug PE Armenian hamster IgG isotype control (left panel).

DESCRIPTION

The J43.1 antibody is specific for mouse CD279, also known as programmed death-1 (PD-1), a 55 kDa glycoprotein which can co-regulate T cell antigen receptor signaling and therefore modulate T cell activation. PD-1 exists in a monomeric form that is expressed by CD4- CD8- thymocytes, where it participates in the processes of clonal selection, elimination of autoreactive lymphocytes, and development of tolerance. PD-1 expression is also inducible upon activation of mature T cells, where it has been proposed to interact with the co-stimulatory receptor CD80 to limit T cell activation. Two ligands for PD-1, known as PD-L1 (B7-H1) and PD-L2 (B7-DC) are differentially expressed on T and B cells, monocytes, macrophages, NK cells or dendritic cells. PD-1 is a member of a family of receptors including CD28 and CTLA-4 (CD152), which interact with “B7” ligands to provide a balance of co-stimulatory /co-inhibitory signaling important in T cell activation, tolerance, and autoimmunity.The J43.1 antibody may be used as a marker for PD-1 expression, and is commonly used for analysis of receptor-ligand interaction and function(s) in vitro and in vivo.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). The amount of antibody required for optimal staining of a cell sample should be determined empirically in your system.

REFERENCES

Hams E, McCarron MJ, Amu S, Yagita H, Azuma M, Chen L, and Fallon PG. 2011. J. Immunol. 186:5648-5655. (in vivo blocking)Rivas MN, Weatherly K, Hazzan M, Vokaer B, Dremier S, Gaudray F, Goldman M, Salmon I, and Braun MY. 2009. 183:4284-4291. (in vitro blocking)Koehn BH, Ford ML, Ferrer IR, Borom K, Gangappa S, Kirk AD, and Larsen CP. 2008. J. Immunol. 181:5313-5322. (in vivo blocking)Brooks DG, Ha S-J, Elsaesser H, Sharpe AH, Freeman GJ, and Oldstone MBA. 2008. Proc. Natl. Acad. Sci. 105:20428-20433. (Flow cytometry)Ansari MJI, Salama AD, Chitnis T, Smith RN, Yagita H, Akiba H, Yamazaki T, Azuma M, Isai H, Khoury SJ, Auchincloss H, and Sayegh MH. 2003. J. Exp. Med. 198:63-71. (Immunohistochemistry – frozen tissue, in vivo blocking)Agata Y, Kawasaki A, Nishimura H, Ishida Y, Tsubat T, Yagita H, and Honjo T. 1996. Int. Immunol. 8:765-772. (Immunoprecipitation)

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.