

Technical Data Sheet

Purified Hamster Anti-Mouse CD279

Product Information

Material Number:	551891
Alternate Name:	PD-1
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	J43
Immunogen:	Syrian Hamster kidney cell line BKH transfected with <i>Pdcd1</i> cDNA
Isotype:	Armenian Hamster IgG2, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The J43 antibody reacts with CD279 (PD-1), a 50-55-kDa glycoprotein encoded by the *Pdcd1* gene of the CD28 family of the Ig superfamily. The expression of *Pdcd1* mRNA and PD-1 protein is tightly regulated. PD-1 is transiently expressed on CD4-CD8⁺ thymocytes, it is upregulated on some cell lines upon induction of apoptosis, it is induced on thymocytes and splenic T and B lymphocytes after stimulation through their antigen receptors, and it is induced on activated myeloid cells. In addition, *Pdcd1* mRNA is transiently expressed in developing B lymphocytes at the pro-B-cell stage. The presence of an ITIM (Immunoreceptor Tyrosine-based Inhibitory Motif) on PD-1's intracytoplasmic region and the development of splenomegaly and breakdown of peripheral tolerance in PD-1^{-/-} mice suggest that PD-1 may be involved in the negative regulation of immune responses. The PD-1 ligands, B7-H1 (also known as PD-L1) and B7-DC (PD-L2), are members of the B7 family of the Ig superfamily. The J43 antibody blocks the binding of PD-1 to its two ligands.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunoprecipitation	Reported
Blocking	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
559277	Purified Hamster IgG2, κ Isotype Control	0.5 mg	B81-3
554011	FITC Mouse Anti-Armenian and Syrian Hamster IgG Cocktail	0.5 mg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/pharmingen/hamster_chart_11x17.pdf.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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