Technical Data Sheet

BUV805 Mouse Anti-Human CD274

Product Information

Material Number:	742059
Size:	50 µg
Clone:	MIH1
Alternative Name:	B7-H1; B7-H; PD-L1; PDL1; PDCD1 ligand 1; PDCD1L1; PDCD1LG1
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG1, κ
Immunogen:	Human CD274 Transfected Cell Line
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The MIH1 monoclonal antibody specifically binds to CD274, which is also known as, B7 homolog 1 (B7-H1), Programmed cell death 1 ligand 1 (PDCD1 ligand, PDCD1L1, PDCD1LG1), or Programmed death ligand 1 (PD-L1, PDL1). CD274 and PD-L2 (CD273) are type I transmembrane glycoproteins that belong to the B7 family and serve as ligands for CD279 (Program Death 1/PD-1). CD274 is expressed on antigen-presenting cells including activated monocytes/macrophages and dendritic cells, as well as, activated T cells, and keratinocytes. CD274 is also expressed on placental trophoblasts, myocardial endothelium, cortical thymic epithelial cells, and on most carcinomas. CD274 plays an important role in regulating T cell responses. The MIH1 antibody blocks CD279 binding to CD274 and can enhance the proliferation and cytokine production of activated T cells.

The antibody was conjugated to BD Horizon™ BUV805 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome of BD Horizon BUV395 with an Ex Max of 348 nm and an acceptor dye with an Em Max at 805 nm. BD Horizon Brilliant BUV805 can be excited by the ultraviolet laser (355 nm) and detected with a 820/60 filter and a 770LP.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with BD Horizon BUV805 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

Catalog Number	Name	Size	Clone
612897	BUV805 Mouse IgG1, k Isotype Control	50 µg	X40
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	
349202	Lysing Solution 10X Concentrate	100 NA	
564219	Human BD Fc Block™	50 mg	

Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Ultraviolet 805 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.

References

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