

MONOCLONAL ANTIBODY

Anti-CD274 (PD-L1) (Human) mAb-Biotin

Code No.	Clone	Subclass	Quantity	Concentration
D092-6	MIH3	Mouse IgG1	1 mL	20 µg/mL

BACKGROUND: Programmed death ligand 1 (PD-L1, also known as CD274/B7-H1), a member of B7 family was identified by searching for molecules that share homology with the immunoglobulin V and C domains of B7-1 and B7-2 among the human cDNA expressed sequence tags in the National Center for Biotechnology Information database. PD-L1 is a ligand for programmed death 1 (PD-1) which belongs to the CD28/CTLA4 subfamily. Although *in vitro* study indicated that the cross-linking of PD-1 by PD-L1 leads to down-regulation of T-cell responses, some studies have shown that T cells stimulated with low levels of anti-CD3 and immobilized PD-L1-Ig were activated, proliferation and production of IFN- γ , GM-CSF and IL-10 from the T cells were enhanced.

SOURCE: This antibody was purified from hybridoma (clone MIH3) supernatant using protein A agarose. This hybridoma was established by fusion of mouse myeloma cell SP2/0 with Balb/c mouse splenocyte immunized with the full-length human PD-L1 transfected L cells.

FORMULATION: 20 µg IgG in 1 mL volume of PBS containing 1% BSA and 0.09% NaN₃.

*Azide may react with copper or lead in plumbing system to form explosive metal azides. Therefore, always flush plenty of water when disposing materials containing azide into drain.

STORAGE: This antibody solution is stable for one year from the date of purchase when stored at 4°C.

REACTIVITY: This antibody reacts with CD274 antigen on Flow cytometry.

APPLICATION:

Flow cytometry: 20 µL (ready for use)

*Please refer to the data sheet (MBL; code no. D092-3) for other applications.

Detailed procedure is provided in the following **PROTOCOL.**

SPECIES CROSS REACTIVITY:

Species	Human	Mouse	Rat
Cell	Transfectant	Not tested	Not tested
Reactivity on FCM	+		

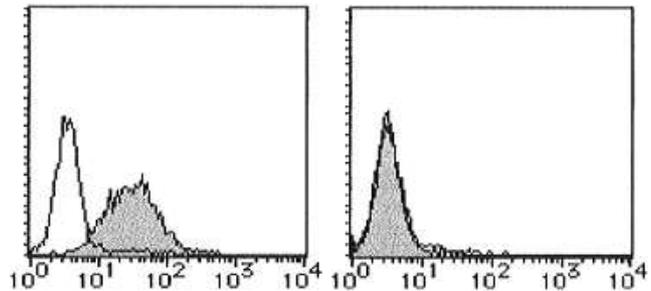
INTENDED USE:

For Research Use Only. Not for use in diagnostic procedures.

REFERENCES:

- 1) del Rio, M. L., *et al.*, *J. Immunol.* **178**, 6861-6866 (2007)
- 2) Yamazaki, T., *et al.*, *J. Immunol.* **169**, 5538-5545 (2002)
- 3) Tamura, H., *et al.*, *Blood* **97**, 1809-1816 (2001)
- 4) Dong, H., *et al.*, *Nat. Med.* **12**, 1365-1369 (1999)

Clone MIH3 is used in reference number 1).



Flow cytometric analysis of CD274 expression on transfectant cells (left) and parental cells (right). Open histogram indicates the reaction of isotypic control to the cells. Shaded histograms indicate the reaction of D092-6 to the cells.

PROTOCOL:

Flow cytometric analysis for floating cells

We usually use Fisher tubes or equivalents as reaction tubes for all step described below.

- 1) Wash the cells 3 times with washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.09% NaN₃].
- 2) Resuspend the cells with washing buffer (5x10⁶ cells/mL).
- 3) Add 50 µL of the cell suspension into each tube, and centrifuge at 500 x g for 1 minute at room temperature (20~25°C). Remove supernatant by careful aspiration.
- 4) Add 20 µL of Clear Back (human Fc receptor blocking reagent, MBL; code no. MTG-001) to the cell pellet after tapping. Mix well and incubate for 5 minutes at room temperature.
- 5) Add 20 µL of the primary antibody. Mix well and incubate for 30 minutes at room temperature.
- 6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
- 7) Add PE conjugated streptavidin diluted with the washing buffer. Mix well and incubate for 15 minutes at room

temperature.

- 8) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
- 9) Resuspend the cells with 500 µL of the washing buffer and analyze by a flow cytometer.

(Positive control for Flow cytometry; Transfectant)

RELATED PRODUCTS:

- | | | | |
|---------|---|---------|---|
| M073-3 | Anti-Caspase-2 (Human) mAb (4F8) | D057-6 | Anti-Fas Ligand (CD178) (Mouse) mAb-Biotin (FLIM58) |
| M097-3 | Anti-Caspase-3 (Human) mAb (1F3) | D069-3 | Anti-Fas Ligand (CD178) (Mouse) mAb (FLIM4) |
| K0197-3 | Anti-Caspase-3 (Human) mAb (AMI-3-1-11) | D086-3 | Anti-ASC (TMS1) (Human) mAb (23-4) |
| M087-3 | Anti-Caspase-3 (Human) mAb (1F9) | D132-3 | Anti-CD279 (PD-1) (Human) mAb (J110) |
| M088-3 | Anti-Caspase-3 (Human) mAb (7D12) | D132-4 | Anti-CD279 (PD-1) (Human) mAb-FITC (J110) |
| M029-3 | Anti-Caspase-4 (Human) mAb (4B9) | D133-3 | Anti-CD279 (PD-1) (Human) mAb (J105) |
| M060-3 | Anti-Caspase-5 mAb (4F7) | D230-3 | Anti-CD274 (PD-L1) (Human) mAb (27A2) |
| M070-3 | Anti-Caspase-6 mAb (3E8) | D231-3 | Anti-CD273 (PD-L2) (Mouse) mAb (54-1) |
| M053-3 | Anti-Caspase-7 mAb (4G2) | D161-3 | Anti-MFG-E8 (Mouse) mAb (2422) |
| M032-3 | Anti-Caspase-8 (Human) mAb (5F7) | D199-3 | Anti-MFG-E8 (Mouse) mAb (18A2-G10) |
| M058-3 | Anti-Caspase-8 (Human) mAb (5D3) | D184-3 | Anti-Granulysin (Human) mAb (RB1) |
| M054-3 | Anti-Caspase-9 mAb (5B4) | D185-3 | Anti-Granulysin (Human) mAb (RC8) |
| M059-3 | Anti-Caspase-10 (Human) mAb (4C1) | D185-6 | Anti-Granulysin (Human) mAb-Biotin (RC8) |
| K0206-3 | Anti-Caspase-12 mAb (14F7) | D186-3 | Anti-Granulysin (Human) mAb (RF10) |
| K0207-3 | Anti-Caspase-12 mAb (14F4) | D200-3 | Anti-CD257 (BAFF/BLyS) (Human) mAb (1D6) |
| K0193-3 | Anti-Caspase-14 (Human) mAb (1-71) | D200-4 | Anti-CD257 (BAFF/BLyS) (Human) mAb-FITC (1D6) |
| M028-3 | Anti-TRAF1 (Mouse) mAb (3D4) | D201-3 | Anti-CD268 (BAFF-R/BR3) (Human) mAb (8A7) |
| D038-3 | Anti-Bcl-2 mAb (83-8B) | D201-4 | Anti-CD268 (BAFF-R/BR3) (Human) mAb-FITC (8A7) |
| D038-5 | Anti-Bcl-2 mAb-PE (83-8B) | D201-5 | Anti-CD268 (BAFF-R/BR3) (Human) mAb-PE (8A7) |
| K0154-3 | Anti-Bcl-2 mAb (10C4) | K0039-3 | Anti-CD120a (TNF-R1) (Human) mAb (H398) |
| M010-3 | Anti-BAX (Human) mAb (4F11) | K0039-4 | Anti-CD120a (TNF-R1) (Human) mAb-FITC (H398) |
| K0151-3 | Anti-Bax (Mouse) mAb (5B7) | K0040-3 | Anti-CD120b (TNF-R2) (Human) mAb (80M2) |
| K0152-3 | Anti-Bax mAb (6A7) | K0040-4 | Anti-CD120b (TNF-R2) (Human) mAb-FITC (80M2) |
| K0153-3 | Anti-Bcl-xL mAb (2H12) | K0040-5 | Anti-CD120b (TNF-R2) (Human) mAb-PE (80M2) |
| M030-3 | Anti-Bag-1 mAb (4A2) | K0127-3 | Anti-Daxx (Human) mAb (DAXX-01) |
| M033-3 | Anti-FADD mAb (1F7) | K0145-3 | Anti-CD30 (Human) mAb (Ber-H2) |
| M035-3 | Anti-FADD (Human) mAb (4G3) | K0145-4 | Anti-CD30 (Human) mAb-FITC (Ber-H2) |
| M037-3 | Anti-DFF45 (ICAD) (Human) mAb (6B8) | K0157-3 | Anti-IKKγ (Human) mAb (DA10-12) |
| M044-3 | Anti-XIAP (MIHA/ILP-a) mAb (2F1) | K0159-3 | Anti-IKKγ mAb (EA2-6) |
| M056-3 | Anti-RAIDD (Human) mAb (4B12) | K0194-3 | Anti-HtrA2 (Omi) (Human) mAb (18-1-83) |
| M072-3 | Anti-BID (Human) mAb (5C9) | CM001-1 | Anti-Cytochrome c mAb (1E4) |
| M074-3 | Anti-Apaf-1 (Human) mAb (5C1) | PM004 | Anti-Smac (DIABLO) pAb (polyclonal) |
| M083-3 | Anti-AcinusL (Human) mAb (3H8) | PD005 | Anti-Vimentin Fragment (V1) pAb (polyclonal) |
| M112-3 | Anti-TRAF2 mAb (6F8) | PD006 | Anti-SET β (p41/p42) pAb (polyclonal) |
| 592 | Anti-TRAF2 pAb polyclonal) | PD007 | Anti-SET β (p42) pAb (polyclonal) |
| 597 | Anti-TRAF6 (Mouse) pAb (polyclonal) | PD008 | Anti-SET β (p41) pAb (polyclonal) |
| M092-3 | Anti-TRAF6 (Mouse) mAb (1F8) | 591 | Anti-Bad pAb (polyclonal) |
| SY-001 | Anti-Fas (CD95) mAb (CH-11) | M075-3 | Mouse IgG1 (isotype control) (2E12) |
| D026-3 | Anti-Fas (CD95) (Mouse) mAb (RMF2) | 4690 | APOPCYTO™ Annexin V-Azami-Green Apoptosis Detection Kit |
| D027-3 | Anti-Fas (CD95) (Mouse) mAb (RMF6) | 4700 | MEBCYTO® Apoptosis Kit (Annexin V-FITC Kit) |
| D041-3 | Anti-Fas Ligand (CD178) (Human) mAb (4H9) | 8445 | MEBSTAIN Apoptosis TUNEL Kit Direct |
| D041-4 | Anti-Fas Ligand (CD178) (Human) mAb-FITC (4H9) | 8441 | MEBSTAIN Apoptosis TUNEL Kit II |
| D041-5 | Anti-Fas Ligand (CD178) (Human) mAb-PE (4H9) | 4800 | APOPCYTO™ Caspase-3 Colorimetric Assay Kit |
| D041-6 | Anti-Fas Ligand (CD178) (Human) mAb-Biotin (4H9) | 4805 | APOPCYTO™ Caspase-8 Colorimetric Assay Kit |
| D042-3 | Anti-Fas Ligand (CD178) (Human) mAb (4A5) | 4810 | APOPCYTO™ Caspase-9 Colorimetric Assay Kit |
| D057-3 | Anti-Fas Ligand (CD178) (Mouse) mAb (FLIM58) | 4815 | APOPCYTO™ Caspase-3 Fluorometric Assay Kit |
| D057-4 | Anti-Fas Ligand (CD178) (Mouse) mAb-FITC (FLIM58) | 4820 | APOPCYTO™ Caspase-8 Fluorometric Assay Kit |
| | | 4825 | APOPCYTO™ Caspase-9 Fluorometric Assay Kit |