Anti-Human CD274/PD-L1 (MIH1)-209Bi

Catalog number, package size: 3209014B, 100 tests
3209014C, 25 tests

Clone: MIH1
Other Names: B7-H1, programmed death ligand 1
Isotype: Mouse IgG1, κ

Reactivity: Human, Dog, Mouse
Tag: 209Bi
Formulation: Antibody stabilizer with 0.05% sodium azide
Storage: Store at 2–8 °C. Do not freeze.
Application: CyTOF® suspension mass cytometry

Technical Information

Description: PD-L1 (also known as CD274, B7-H1), one of the ligands for programmed death 1 (PD-1), is an immune-inhibitory receptor belonging to the CD28/cytotoxic T lymphocyte antigen 4 (CTLA-4) family. It can deliver an inhibitory signal to PD-1/B7-1-expressing T cells, resulting in immune-suppressive effects when expressed on antigen-presenting cells (APCs). PD-L1 is expressed on activated T cells, B cells, macrophages, and bone marrow-derived mast cells. PD-L1 expression is also found on a wide range of human tumors such as kidney, ovarian, bladder, breast, liver, gastric, pancreatic and non-small cell lung cancer (NSCLC). Most importantly, these studies reveal that higher expression of PD-L1 may facilitate advancement of tumor stage and increase the invasion potential. PD-L1 expression can be induced by many inflammatory mediators and cytokines, of which interferon-γ (IFN-γ) is the most potent. Blockade of the PD-1/PD-L1 interaction has been shown to reverse immune exhaustion and is a critical target of current immunotherapeutics.

Application: The metal-tagged antibody is designed and formulated for the application of suspension mass cytometry using the Fluidigm CyTOF suspension systems on healthy human PBMC.

Validation: Each lot of conjugated antibody is quality control-tested by CyTOF suspension mass cytometry analysis of stained cells using appropriate positive and negative cell staining and/or activation controls.

Recommended use: Use 1 µL for up to 3 x 10⁶ live cells in 100 µL staining volume. We recommend titrating the antibody for optimal performance for each of the desired applications. Centrifuge the stock antibody at 12,000 × g for 5 min to sediment antibody aggregates. Fixation is typically used in intracellular staining protocols or in barcoding with the Cell-ID™ 20-Plex Pd Barcoding Kit (PN 201060). However, fixing before antibody staining can affect epitope structure and antibody binding, with the impact varying on the type and concentration of fixative and the protocol used. It is therefore important to perform a small, preliminary antibody staining experiment, with and without fixation, using non-critical samples.

Applicable Protocols

Before using this product, refer to the instructions in the Maxpar® Cell Surface Staining with Fresh Fix Protocol (400276).

References


Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to fluidigm.com and search for 3000000X.

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