

Anti-Human PD-L1 (SP142)-150Nd (3150033D)

Pathologist-Verified Clone for Imaging Mass Cytometry

Catalog: 3150033D

Package size and concentration: 25 µg, 0.5 mg/mL

Storage: Store at 4 °C. Do not freeze.

Reactivity: Human

Clone: SP142

Isotype: Rabbit IgG

Formulation: Antibody stabilizer with 0.05% sodium azide

Application: IMC paraffin, IMC frozen

Technical Information

Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry™ (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

Quality control: Each lot of conjugated antibody is quality control-tested by Imaging Mass Cytometry on tissue sections.

Recommended concentration: For optimal performance it is recommended that the antibody be titrated for the desired application. Suggested initial dilution range:

IMC paraffin: 1:50 to 1:200

IMC frozen: 1:25 to 1:100

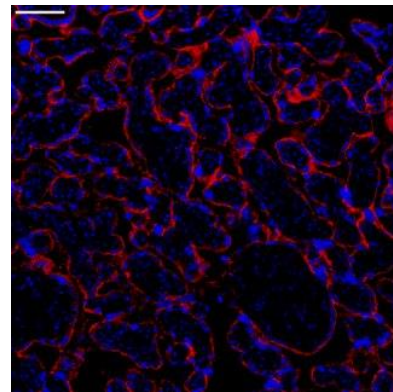
Description

PD-L1 (also known as CD274 and B7-H1), one of the ligands for programmed death 1 (PD-1), is an immune-inhibitory receptor belonging to the CD28/cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) family. It can deliver an inhibitory signal to T cells expressing PD-1/B7-1, resulting in immune suppressive effects. PD-L1 is expressed on activated T cells, B cells, NK cells, DCs, macrophages, and bone marrow-derived mast cells. PD-L1 expression is also found on a wide range of human tumors. In addition, studies have shown that PD-L1 expression strongly correlates with unfavorable prognosis in kidney, ovarian, bladder, breast, liver, gastric, and pancreatic cancer, but not in non-small cell lung cancer (NSCLC). Most important, 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.

References

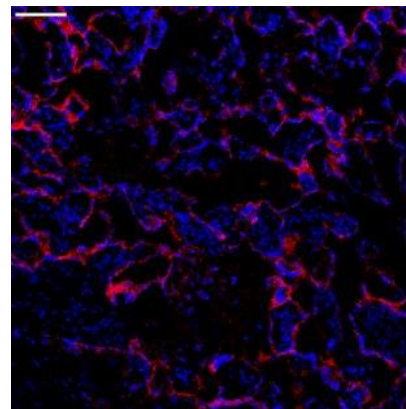
Chang, Q. et al. "Staining of frozen and formalin-fixed, paraffin-embedded tissues with metal-labeled antibodies for Imaging Mass Cytometry analysis." *Current Protocols in Cytometry* 82 (2017): 12.47.1–12.47.8.

Giesen, C. et al. "Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry." *Nature Methods* 11 (2014): 417–22.



Human placenta (FFPE) stained with 150Nd-anti-PD-L1 (SP142) at a dilution of 1:100 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.

Scale bar size = 100 µm.



Human frozen placenta stained with 150Nd-anti-PD-L1 (SP142) at a dilution of 1:50 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Tissue section was fixed in 4% paraformaldehyde for 30 minutes at 4 °C.

Scale bar size = 100 µm.

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