

# Anti-PD1 Antibody

## IRS190MS



<b>Product Type:</b>	Mouse monoclonal IgG2a, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	mIHC
<b>Molecular Wt:</b>	Predicted band size: 32 kDa

**Description:** Programmed cell death protein 1 (PD-1), (CD279 cluster of differentiation 279). PD-1 is a protein encoded in humans by the PDCD1 gene. PD-1 is a cell surface receptor on T cells and B cells that has a role in regulating the immune system's response to the cells of the human body by down-regulating the immune system and promoting self-tolerance by suppressing T cell inflammatory activity. This prevents autoimmune diseases, but it can also prevent the immune system from killing cancer cells. PD-1 is an immune checkpoint and guards against autoimmunity through two mechanisms. First, it promotes apoptosis (programmed cell death) of antigen-specific T-cells in lymph nodes. Second, it reduces apoptosis in regulatory T cells (anti-inflammatory, suppressive T cells). PD-1 inhibitors, a new class of drugs that block PD-1, activate the immune system to attack tumors and are used to treat certain types of cancer. PD-1 is a cell surface receptor that belongs to the immunoglobulin superfamily and is expressed on T cells and pro-B cells. PD-1 binds two ligands, PD-L1 and PD-L2.

**Positive control:** Human tonsil tissue, human spleen tissue.

**Subcellular location:** Cell membrane.

**Database links:** SwissProt: Q15116 Human

**Recommended Dilutions:**  
mIHC 1:100

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

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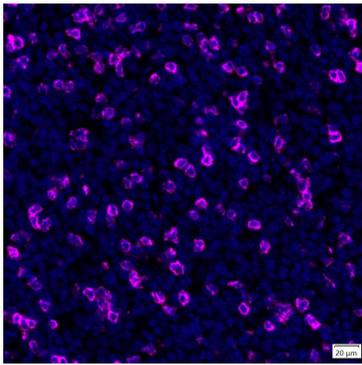
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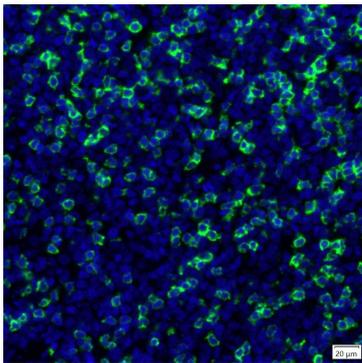
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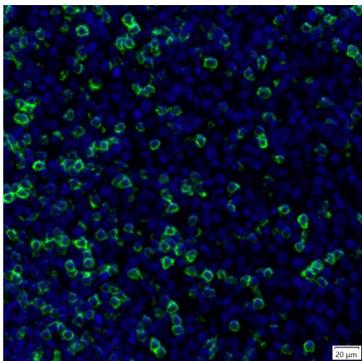
## Images



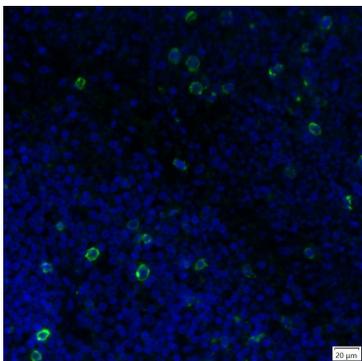
**Fig1:** mlHC analysis of human tonsil tissue (Formalin/PFA-fixed paraffin-embedded sections) with Mouse anti-PD1 antibody (IRS190MS) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900809). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.



**Fig2:** mlHC analysis of human tonsil tissue (Formalin/PFA-fixed paraffin-embedded sections) with Mouse anti-PD1 antibody (IRS190MS) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900809). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.



**Fig3:** mlHC analysis of human tonsil tissue (Formalin/PFA-fixed paraffin-embedded sections) with Mouse anti-PD1 antibody (IRS190MS) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900809). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.



**Fig4:** mlHC analysis of human spleen tissue (Formalin/PFA-fixed paraffin-embedded sections) with Mouse anti-PD1 antibody (IRS190MS) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900809). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Lei Q et al. Resistance Mechanisms of Anti-PD1/PDL1 Therapy in Solid Tumors. *Front Cell Dev Biol.* 2020 Jul
2. Chamoto K et al. Insights from a 30-year journey: function, regulation and therapeutic modulation of PD1. *Nat Rev Immunol.* 2023 Oct

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