Anti-CD4 Antibody [ST0488]

IRS005



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human
Applications: mIHC
Clone number: ST0488

Description: The T cell receptor (TCR) is a heterodimer composed of either α and β or γ and δ chains.

CD3 chains and the CD4 or CD8 co-receptors are also required for efficient signal transduction through the TCR. The TCR is expressed on T helper and T cytotoxic cells that can be distinguished by their expression of CD4 and CD8; T helper cells express CD4 proteins and T cytotoxic cells display CD8. CD4 is also expressed on cortical cells, mature medullary thymocytes, microglial cells and dendritic cells. CD4 (also designated T4 and Leu 3), is a membrane glycoprotein that contains four extracellular immunoglobin-like domains. The TCR in association with CD4 can bind class II MHC molecules presented by the antigen-presenting cells. The CD4 protein functions by increasing the avidity of the interaction between the TCR and an antigen-class II MHC complex. An additional role of

CD4 is to function as a receptor for HIV.

Immunogen: Recombinant protein within Human CD4 aa 196-416 / 458.

Positive control: Human tonsil tissue.

Subcellular location: Cell membrane.

Database links: SwissProt: P01730 Human

Recommended Dilutions:

mIHC 1:100. This antibody has been validated for multiplex staining with LUMINIRIS mTSA,

supporting both multiplex and super-multiplex staining.

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

Storage Instruction: Store at $+4^{\circ}$ C after thawing. Aliquot store at -20° C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Images

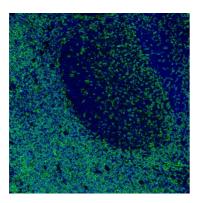


Fig1: mlHC analysis of human tonsil tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rabbit anti-CD4 antibody (IRS005) at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at $95\,^{\circ}\mathrm{C}$. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

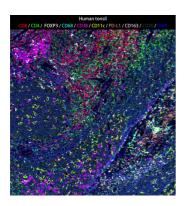


Fig2: mIHC analysis of human tonsil tissue (Formalin/PFA-fixed paraffin-embedded sections) with CD8, CD4 (IRS005), FOXP3, CD68 (IRS004), CD38 (IRS006), CD11c (IRS001), PD-L1, CD163 (IRS002) and CD20 (IRS003) antibody at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

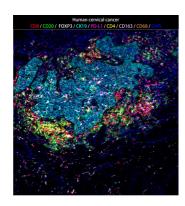


Fig3: mlHC analysis of human cervical cancer tissue (Formalin/PFA-fixed paraffin-embedded sections) with CD8, CD20 (IRS003), FOXP3, CK19 (IRS011), PD-L1, CD4 (IRS005), CD163 (IRS002) and CD68 (IRS004) antibody at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at $95\,^{\circ}\mathrm{C}$. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

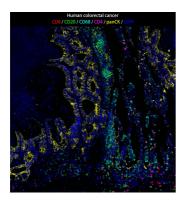


Fig4: mIHC analysis of human colorectal cancer tissue (Formalin/PFA-fixed paraffin-embedded sections) with CD8, CD20 (IRS003), CD68 (IRS004), CD4 (IRS005) and panCK (IRS010) antibody at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen 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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Background References

- 1. Kim EJ et al. Costimulation blockade alters germinal center responses and prevents antibody-mediated rejection. Am J Transplant 14:59-69 (2014).
- 2. Liu XD et al. Resistance to Antiangiogenic Therapy Is Associated with an Immunosuppressive Tumor Microenvironment in Metastatic Renal Cell Carcinoma. Cancer Immunol Res 3:1017-29 (2015).