Anti-CD23 Antibody [PD00-03]

IRS021

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	mIHC
Molecular Wt:	Predicted band size: 36 kDa
Clone number:	PD00-03

Description: CD23 (low affinity IgE receptor, Leu-20, FceRII) is a type II integral membrane glycoprotein, 45-60 kDa, and a member of an immunoglobulin supergene family. CD23 is a B-cell-specific antigen and it has essential roles in the regulation of IgE production and in the differentiation of B-cells. In humans, main cellular expression of CD23 is found in B-lymphocytes (strong expression in activated germinal center B-cells, weaker staining of resting mantle zone B-cells), monocytes, follicular dendritic cells (FDCs) predominately in the apical light zone of the germinal center, but also on activated CD4+ T lymphocyte subset, platelets, eosinophils, neutrophils, and Langerhans cells. CD23 is upregulated in Eppstein-Barr infection. CD23 is constitutively expressed by intestinal epithelial cells and its expression is enhanced in enteropathies. CD23 is typically expressed in chronic lymphocytic leukemia (CLL), sometimes in follicular lymphoma, rarely in marginal zone and lymphoplasmacytic lymphoma, but not in mantle cell lymphoma. In CLL, the strongest expression is characteristically present in proliferation centers. It was recently demonstrated that patients with CD23-positive diffuse large B-cell lymphoma have good prognosis. CD23 is also frequently used to demonstrate benign follicular dendritic cells in the background of follicular lymphoma, nodular lymphocyte predominant Hodgkin lymphoma, (intra)follicular T-cell lymphoma and other lymphomas. Together with CD21, CD23 is a marker of rare follicular dendritic cell tumors Some authors demonstrated CD23 expression in epithelial cells of nasopharyngeal carcinoma. In diagnostic pathology CD23 is primarily used in the panel for small B-cell lymphoproliferative disorders. Tonsil is recommended as positive and negative tissue control for CD23. The follicular dendritic cells of the germinal centres must be stained as strongly as possible without any staining reaction of squamous epithelial cells and T-cells in the interfollicular T-zones. In the mantle zone of the follicles, the majority of activated B-cells must show an at least weak to moderate and distinct continuous membranous staining reaction.

Immunogen:	Recombinant protein within human CD23 aa 48 – 321 (Extracellular).
Positive control:	Human tonsils tissue, human lung squamous cell carcinoma tissue.
Subcellular location:	Cell membrane, Secreted.
Database links:	SwissProt: P06734 Human
Recommended Dilutions:	
mIHC	1:100
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

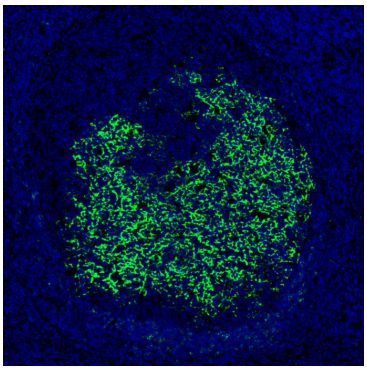

Fig1: mIHC analysis of human tonsils tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rabbit anti-CD23 antibody (IRS021) at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

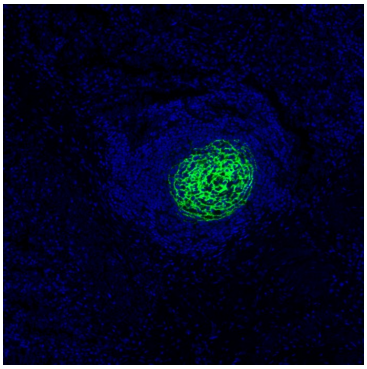

Fig2: mIHC analysis of human lung squamous cell carcinoma tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rabbit anti-CD23 antibody (IRS021) at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen retrieval with Tris-EDTA 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.

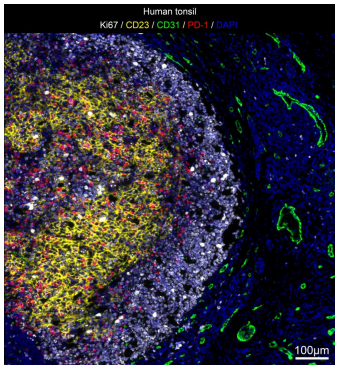

Fig3: mIHC analysis of human tonsil tissue (Formalin/PFA-fixed paraffin-embedded sections) with Ki67 (IRS036), CD23 (IRS021), CD31 (IRS023) and PD-1 antibody at 1/100 dilution. The immunostaining was performed with the IRISKit® HyperView mTSA Kit (MH900206). Heat mediated antigen retrieval with Tris-EDTA 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.

Background References

1. Engeroff P. et. al. The role of CD23 in the regulation of allergic responses. Allergy. 2021 Jul
2. Engeroff P. et. al. CD23 provides a noninflammatory pathway for IgE-allergen complexes. J Allergy Clin Immunol. 2020 Jan