CD23 Recombinant Antibody [PD00-03] - Mouse IgG1 (Chimeric)

HA601682

Product Type:	Recombinant Chimeric, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, IF-Tissue
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 Tonsil, Human Lymph node.
Subcellular location:	Cell membrane, Secreted.
Database links:	SwissProt: P06734 Human
Recommended Dilutions:	
IHC-P	1:1,000
IF-Tissue	1:200
Storage Buffer:	1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

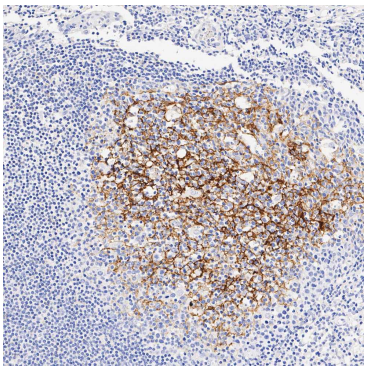


Fig1: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue:Tonsil
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601682, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1120, 20 minutes at room temperature.

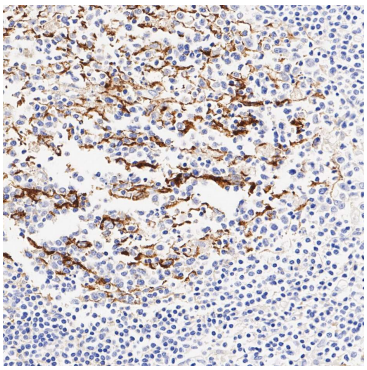


Fig2: Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Lymph node
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601682, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1120, 20 minutes at room temperature.

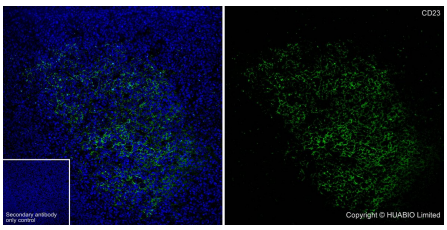


Fig3: Application: Immunofluorescence (IF-tissue)

Species: Human
Tissue: Tonsil
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Blocking: 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature.
Primary antibody: HA601682, 1/200, overnight at 4°C.

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

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