Anti-CD15 Antibody [PD00-42]

HA721246

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, mIHC, FC
Molecular Wt:	Predicted band size: 59 kDa
Clone number:	PD00-42

Description: CD15 is a complex cluster of cell surface glycoproteins and glycolipids having a common terminal pentasaccaharide known as the Lewisx (Lex) antigen. CD15 is a haemopoietic differentiation antigen expressed on most terminally differentiated myeloid cells including granulocytes, eosinophils, mast cells, monocytes/macrophages, and Langerhans' cells. CD15 is not substantially expressed on haemopoietic progenitor cells. The positivity for CD15 is characteristic of Hodgkin's cells in classical Hodgkin's disease (HD). Rare cases of acute lymphoblastic leukaemia, in which myeloid antigens are often CD15 positive. Myeloid leukaemia cells express CD15 in a heterogeneous manner. CMLs are regularly CD15 positive. CD15 is expressed in a varying proportion of epithelial tumours such as adenocarcinomas (particularly from breast, lung and colon), renal cell carcinoma, apocrine carcinoma of the skin, papillary and follicular carcinoma of the thyroid, and serous carcinoma of the ovary. It is possible that sialyl-CD15 confer on the tumour cells the capacity to metastasize. Malignant mesothelioma is practically always CD15 negative (positivity has been reported in up to 6%, particularly the desmoplastic variant). In gliomas, CD15 positivity inversely correlates with the grade of malignancy. Among germ cell tumours, CD15 is detected only in mature teratoma. In haematopathology CD15 is important for the diagnosis of classical HD and characterization of acute leukaemia. CD15 may be used for histopathological grading of gliomas and differentiating between malignant gliomas and non-neoplastic glial cells (the latter usually strongly stained). Kidney and tonsil are recommended as positive and negative tissue controls for CD15.

Immunogen:	Purified CD15 .
Positive control:	Human tonsil, Human breast carcinoma tissue, human peripheral blood granulocytes.
Subcellular location:	Golgi apparatus, Golgi stack membrane
Recommended Dilutions:	
IHC-P	1:1,000
mIHC	1:500
FC	1:1,000
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℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

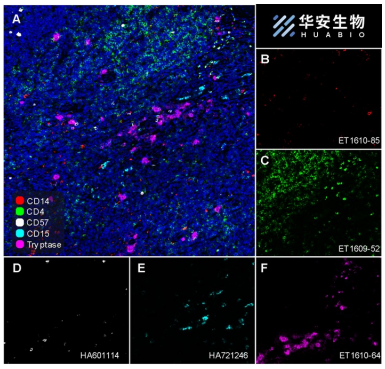

Fig1: Fluorescence multiplex immunohistochemical analysis of Human tonsil (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD14 (ET1610-85, Red), anti-CD4 (ET1609-52, Green), anti-CD57 (HA601114, White), anti-CD15 (HA721246, Cyan)and anti-Tryptase (ET1610-64, Magenta) on tonsil. Panel B: anti- CD14 stained on monocytes. Panel C: anti-CD4 stained on helper T cells and Treg cells. Panel D: anti-CD57 stained on NK cells and T cells. Panel E: CD15 stained on granulocytes and monocytes. Panel F: anti-Tryptase stained on Mast cells. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in five rounds of staining: in the order of ET1610-85 (1/800 dilution), ET1609-52 (1/800 dilution), HA601114 (1/1,000 dilution), HA721246 (1/500 dilution), and ET1610-64 (1/3,000 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. 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.

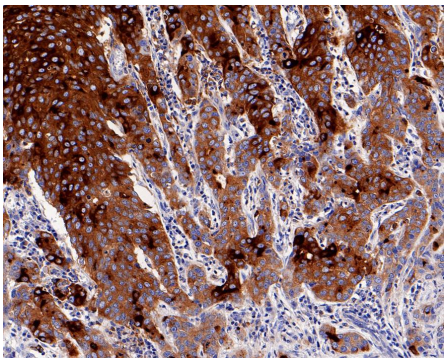

Fig2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue with Rabbit anti-CD15 antibody (HA721246) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721246) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

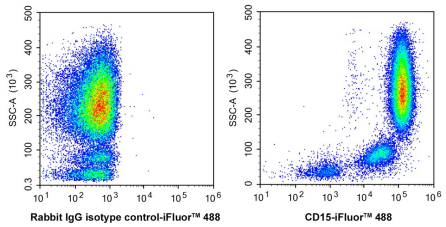

Fig3: Flow cytometry analysis of human peripheral blood granulocytes labelling CD15 (HA721246).

Background References

1. Seidmann L et al. CD15 immunostaining improves placental diagnosis of fetal hypoxia. Placenta. 2021 Feb
2. Tian X et al. Circulating CD15+ LOX-1+ PMN-MDSCs are a potential biomarker for the early diagnosis of non-small-cell lung cancer. Int J Clin Pract. 2021 Aug