Anti-CD66b Antibody

HA500100



Product Type: Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human

Applications: WB, IHC-P, mIHC

Molecular Wt: Predicted band size: 38 kDa.

Description: Carcinoembryonic antigen-related cell adhesion molecule 8, also designated CD67, CD66b

or nonspecific cross-reacting antigen (NCA-95), belongs to the human carcinoembryonic antigen (CEA) family. The CD67 antigen is encoded by the CEACAM8 (CGM6) gene, which is exclusively expressed in neutrophils and eosinophils. In neutrophils, the CEACAM8 gene is primarily detected in the secondary granules within the cytoplasm, but it can also be found in lower amounts on the plasma membrane. The amount of CD67 on the plasma membrane is up-regulated upon granulocyte activation. CD67 has been located on the surface of neutrophilic and eosinophilic granulocytes at late stages of differentiation. It exhibits heterophilic cell adhesion properties with CD66c, which is coexpressed with CD67 in granulocytes. CD67, which is attached to the membrane by a GPI-anchor, is expressed in leukocytes of chronic myeloid leukemia patients and bone marrow and in granulocytes in the

spleen, thymus and lungs.

Immunogen: Recombinant protein within human CD66b aa 1-250.

Positive control: U937 cell lysate, A431 cell lysate, Daudi cell lysate, human cervical cancer, human colon

cancer tissue, human colon tissue.

Subcellular location: Cell membrane, Cell surface.

Database links: SwissProt: P31997 Human

Recommended Dilutions:

WB 1:500-1:1,000 IHC-P 1:50-1:200 mIHC 1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4 °C after thawing. Aliquot store at -20 °C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

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Images

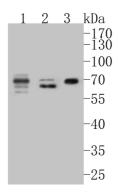


Fig1: Western blot analysis of CD66b on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (HA500100, 1/1,000) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Positive control:

Lane 1: U937 cell lysate Lane 2: A431 cell lysate Lane 2: Daudi cell lysate

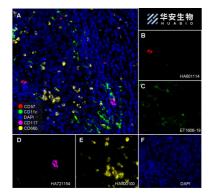


Fig2: Fluorescence multiplex immunohistochemical analysis of the human cervical cancer (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD57 (HA601114, red), anti-CD11c (ET1606-19, green), anti-CD117 (HA21154, magenta) and anti-CD66b (HA500100, yellow) on human cervical cancer. Panel B: anti- CD57 stained on NKT cells. Panel C: anti-CD11c stained on dendritic cells. Panel D: anti-CD117 stained on mast cells. Panel E: anti-CD66b stained on neutrophils. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immunostaining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in four rounds of staining: in the order of HA601114 (1/500 dilution), ET1606-19 (1/1,000 dilution), HA721154 (1/1,000 dilution), and HA500100 (1/1,000 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.

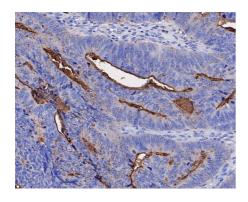


Fig3: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-CD66b antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA500100, 1/400) for 30 minutes 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.

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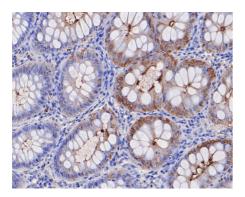


Fig4: Immunohistochemical analysis of paraffin-embedded human colon tissue using anti-CD66b antibody. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (HA500100, 1/400) for 30 minutes 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.

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

Background References

- 1. Posabella A. et. al. High density of CD66b in primary high-grade ovarian cancer independently predicts response to chemotherapy. J Cancer Res Clin Oncol. 2020 Jan
- 2. Huang X. et. al. Prognostic significance of the infiltration of CD163(+) macrophages combined with CD66b(+) neutrophils in gastric cancer. Cancer Med. 2018 May