

10-4168: Monoclonal Antibody to Human CD98 (Clone: ABM5A27)

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| Clonality : | Monoclonal |
| Clone Name : | ABM5A27 |
| Application : | FACS,WB |
| Reactivity : | Human |
| Gene : | SLC3A2 |
| Gene ID : | 6520 |
| Uniprot ID : | P08195 |
| Format : | Purified |
| Alternative Name : | 4F2 cell-surface antigen heavy chain, 4F2 heavy chain antigen, Lymphocyte activation antigen 4F2 large subunit, Solute carrier family 3 member 2 |
| Isotype : | Mouse IgG1, kappa |
| Immunogen Information : | A partial length recombinant protein (a.a 162-371) of hCD98 was used as the immunogen for this antibody. |

Description

CD98 was originally identified as a cell surface antigen associated with lymphocyte activation defined by 4F2 mAb; it is expressed in proliferating normal tissues and in almost all tumor cells. CD98 heterodimer consists of a type II single-pass transmembrane heavy chain (CD98hc, also known as 4F2 antigen heavy chain or FRP-1; encoded by the genes SLC3A2 and Slc3a2 for human and mouse, respectively) of ~80-85 kDa that is disulfide-linked with a multi-pass light chain of ~40 kDa. CD98 hc (heavy chain) is a type II transmembrane glycoprotein that is disulfide-linked to a non-glycosylated light chain of a member of the permease family. It has been reported that CD98 was functionally involved in lymphocyte activation, cell proliferation, and malignant transformation. CD98 forms the large neutral amino acid transporter that is a heterodimeric membrane transport protein to transport branched-chain (valine, leucine, isoleucine) and aromatic (tryptophan, tyrosine) amino acids. Intestinal epithelial cells express CD98 under the physiological conditions. Recent reports indicate that CD98 is involved in the intestinal inflammation, which can be upregulated by interferon (IFN)-gamma in the intestine.

Product Info

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| Amount : | 25 µg / 100 µg |
| Purification : | Protein G Chromatography |
| Content : | 25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic. |
| Storage condition : | Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles. |

Application Note

WB: 4-6 µg/ml, FACS: 1-2 µg/10⁶ cells

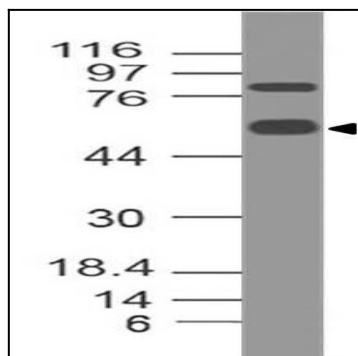


Fig-1: Western blot analysis of hCD98. Anti-hCD98 antibody (Clone: ABM5A27) was used at 4 $\mu\text{g}/\text{ml}$ on human Kidney lysate.

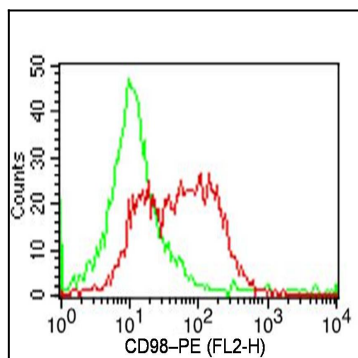


Fig-2: Cell surface flow analysis of hCD98 on human PBMCs (Monocytes gated) using 1 $\mu\text{g}/10^6$ cells. Green represents isotype control (ABEOMICS); red represents anti-hCD98 antibody (10-4168). Goat anti-mouse PE conjugated secondary antibody (ABEOMICS) was used.. (Cells were incubated with primary antibody for 45 min. then washed twice with PBS by centrifuging at 1100 rpm for 5 min, followed by 30 min incubation with conjugated secondary antibody. Data acquisition was done after washing twice with PBS as mentioned above).