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

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

Amount : $25 \mu g / 100 \mu g$

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.

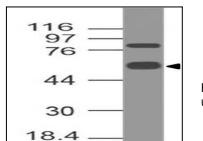
Application Note

WB: 4-6 μg/ml, FACS: 1-2 μg/10⁶ cells



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Fig-1: Western blot analysis of hCD98. Anti-hCD98 antibody (Clone: ABM5A27) was used at 4 μ g/ml on human Kidney lysate.

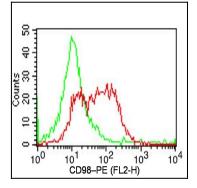


Fig-2: Cell surface flow analysis of hCD98 on human PBMCs (Monocytes gated) using $1\,\mu\text{g}/10^{\circ}6$ cells. Green represents isotype control (ABEOMICS); red represents anti-hCD98 antibody (10-4168). Goat anti-mouse PE conjugated secondary antibody (ABEOMICS) was used.. (Cells were incubated 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).