

# CD98 (Extracellular region)

Mouse Monoclonal IgM

Cat. # CM0011

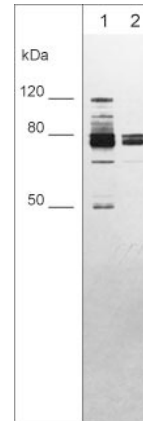
Size 100 µl

## Background

CD98 (SLC3A2/4F2 heavy chain) is a transmembrane protein that belongs to the solute carrier family. CD98 forms heterodimeric complexes with various amino acid transporters such as LAT1 and LAT2 and regulates uptake of amino acids. CD98 is an early expressed antigen on the surface of activated human lymphocytes, and is also expressed in most cell types with the exception of platelets. CD98 is highly expressed in the tubules of the kidney and the gastrointestinal tract. CD98 also expressed in tumors, including glioma, ovarian cancer, and astrocytomas. Expression of CD98 has been implicated in tumor progression and correlates with poor outcome in patients with pulmonary neuroendocrine tumors. CD98 is also involved in integrin trafficking through association with  $\beta 1$  and  $\beta 4$  integrins, and regulates keratinocyte adhesion and differentiation. Thus, CD98 is a widely expressed transmembrane protein involved in amino acid transport, integrin function, and differentiation.

## Background References

Cantor J.M. & Ginsberg M.H. (2012) J Cell Sci. 125(6):1373.  
Nguyen HT & Merlin D (2012) Cell Mol Life Sci. 69(18):3015.



Western blot analysis of human A431 whole cell lysates. The blots were probed with mouse monoclonal anti-CD98 (CM0011) at 1:250 (lane 1) or 1:1000 (lane 2). The antibody detects various glycosylated forms of CD98 between 75-120 kDa with 75 kDa being the major form.

## Applications

WB	1:250
IP	1:50
ELISA	1:1000

End user should determine optimal dilution for their particular applications and experiments.  
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

## Species Reactivity

Hu, Rt, Ms

## Specificity

Clone M001 was purified using anti-IgM coupled agarose. The antibody detects 75 to 120 kDa\* bands corresponding to the molecular mass of CD98 on SDS-PAGE immunoblots of human MDA-MB-231 and A431 cell lysates, as well as rat PC12 and mouse C2C12 cell lysates. The antibody also detects the extracellular region of a recombinant CD98 protein under either "denatured" or "native" conditions, and can be used for immunoprecipitation and protein ELISA.

\*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

## Immunogen

Clone M001 was generated from a proprietary antigen related to the extracellular region of human CD98 from the MCF-7 breast cancer line.

## Buffer and Storage

Mouse monoclonal antibody purified is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at  $-20^{\circ}\text{C}$ . Stable for 1 year.

## Related Products

CM5881	CD44 (Hyaluron Binding Region) Mouse Monoclonal
CM5911	CD44 (Hyaluron Binding Region) Mouse Monoclonal
CM0331	CD55 (Extracellular region) Mouse Monoclonal
IM5831	Integrin $\alpha 2$ (Extracellular region) Mouse Monoclonal
IM5821	Integrin $\beta 1$ (Extracellular region) Mouse Monoclonal

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