



CodeNo.KAL-KE020-EX

For research use only

## Anti Human 4F2 Heavy Chain (4F2hc:CD98) Polyclonal Antibody, Rabbit

Mammalian amino acid transport system is consisted of large variety of transporters with the reflection of amino acid molecule variety, and is classified into various transport systems by the transportative substrate selectivity and the Na<sup>+</sup> dependence with the reflection of amino acid molecule variety.

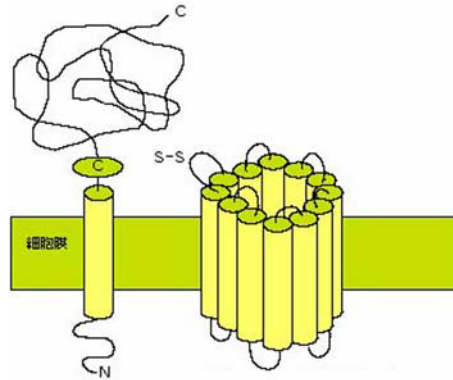
4F2 heavy chain (4F2hc:CD98) is originally identified as a cell-surface antigen which is upregulated by lymphocyte activation, and is a single membrane-spanning protein, of which molecular weight is under 85-kDa. The transporter corresponds to the amino acid transporter, system L, y<sup>+</sup>L, X<sub>c</sub><sup>-</sup>, and asc, which requires 4F2hc for its functional expression. 4F2hc and its associated transporters are linked via disulfide band to form heterodimeric complexes. 4F2hc is present at cell membrane in blood vessel side of epitheliocyte, and transports its associated transporters to cell membrane of blood vessel in epitheliocyte. This antibody has been proved to be useful for immunohistochemistry and immunoblotting.

Package Size	250 μg (500 μL / vial)
Format	Rabbit polyclonal antibody 0.5mg/mL
Buffer	Block Ace as a stabilizer, containing 0.1%Proclin as bacteriostat
Storage	Store below -20°C Once thawed, store at 4°C. Repeated freeze-thaw cycles should be avoided.
Purification method	This antibody was purified from rabbit serum immunized with synthesized peptide of C- end of human 4F2hc by protein G affinity chromatography.
Working dilution for immunohistochemistry:	50 μg/mL for immunoblotting : 0.2-1 μg/mL



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4F2hc      LAT Transporter Family

### Heterodimeric Complex

#### 【Reference】

1. Kanai Y., Segawa H., Miyamoto M., Uchino H., Takeda E., and Endou H.: Expression Characterization of a Transporter for Large Neutral Amino Acids Activated by the Heavy Chain of 4F2 Antigen (CD98) *J.Biol.Chem.* 273: 23629-23632, 1998
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4. Kim J.Y., Kanai Y., Chairoungdua A., Cha S.H., Matsuo H., kim D.K., Inatomi J., Sawa H., Ida Y., Endou H.,:Human cystine/glutamate transporter: cDNA cloning and upregulation by oxidative stress in glioma cells. *Biochim. Biophys.Acta.*1512: 335-344,2001.
5. Yanagawa O., Kanai Y., Chairoungdua A., Kim D.K., Segawa H., Nii T., Cha S.H., Matsuo H., Fukushima J., Fukusawa Y., Tani Y., Taketani Y., Uchino H., Kim J.Y., Inatomi J., Okayasu I., Miyamoto K., Takeda E., Goya T., and Endou H.:Human L-type amino acid transporter 1 (LAT1): Characterization of function and expression in tumor cell lines. *Biochim.Biophys.Acta.*1514: 291-302,2001

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