Background: 4F2hc is a transmembrane protein that belongs to the solute carrier family. 4F2hc forms hetero-meric complexes with various amino acid transporters such as LAT1 and LAT2 and regulates uptake of amino acids (1-5). 4F2hc is one of the earliest expressed antigens on the surface of activated human lymphocytes (6), hence it is also named CD98. 4F2hc is expressed in all cell types with the exception of platelets, and is expressed at highest levels in the tubules of the kidney and the gastrointestinal tract (7,8). It is localized at the plasma membrane when associated with LAT1 or LAT2 (9) and at the apical membrane of placenta (10). Research studies have shown that 4F2hc is highly expressed in various tumors including glioma (11), ovarian cancer (12), and astrocytomas (13), and it has been implicated in tumor progression and correlated with poor outcome in patients with pulmonary neuroendocrine tumors (14). 4F2hc is also involved in integrin trafficking through association with β1 and β4 integrins, and regulates keratinocyte adhesion and differentiation (15).

Specificity/Sensitivity: 4F2hc/CD98 Antibody recognizes endogenous levels of total 4F2hc/CD98 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg524 of human 4F2hc/CD98 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at −20°C. Do not aliquot the antibody.

Recommended Antibody Dilutions:
- Western blotting: 1:1000
- Immunoprecipitation: 1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western, IP—Immunoprecipitation, IHC—Immunohistochemistry, ChIP—Chromatin Immunoprecipitation, IF—Immunofluorescence, F—Flow cytometry, E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human, M—mouse, R—rat, Hm—hamster, Mk—monkey, Mi—mink, C—chicken, Dm—D. melanogaster, X—Xenopus, B—bovine, Dg—dog, Pg—pig, Sc—S. cerevisiae, Ce—C. elegans, Hr—horse, All—all species expected

Species enclosed in parentheses are predicted to react based on 100% homology.