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#2671

4F2hc/CD98 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M Mk	Sensitivity: Endogenous	MW (kDa): 75-120	Source/Isotype: Rabbit	UniProt ID: #P08195	Entrez-Gene Id: 6520
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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.

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.

Background

4F2hc is a transmembrane protein that belongs to the solute carrier family. 4F2hc forms heterodimeric 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 β 1 and β 4 integrins, and regulates keratinocyte adhesion and differentiation (15).

Background References

1. Kanai, Y. et al. (1998) *J Biol Chem* 273, 23629-32.
2. Mastroberardino, L. et al. (1998) *Nature* 395, 288-91.
3. Pfeiffer, R. et al. (1999) *EMBO J* 18, 49-57.
4. Pineda, M. et al. (1999) *J Biol Chem* 274, 19738-44.
5. Sato, H. et al. (1999) *J Biol Chem* 274, 11455-8.
6. Lumadue, J.A. et al. (1987) *Proc Natl Acad Sci USA* 84, 9204-8.
7. Rossier, G. et al. (1999) *J Biol Chem* 274, 34948-54.
8. Dave, M.H. et al. (2004) *J Physiol* 558, 597-610.
9. Bröer, A. et al. (2001) *Biochem J* 355, 725-31.
10. Ritchie, J.W. and Taylor, P.M. (2001) *Biochem J* 356, 719-25.
11. Okubo, S. et al. (2010) *J Neurooncol* 99, 217-25.
12. Kaji, M. et al. (2010) *Int J Gynecol Cancer* 20, 329-36.
13. Nawashiro, H. et al. (2006) *Int J Cancer* 119, 484-92.
14. Kaira, K. et al. (2011) *Oncol Rep* 26, 931-7.
15. Lemaître, G. et al. (2011) *J Dermatol Sci* 61, 169-79.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary 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 Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

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