

KS129 Anti Human CD98hc(4F2) Monoclonal Antibody (Clone No.WK4)		Application	
Primary Source	HGNC:11026	WB	Not tested
Type	Monoclonal	IHC	Not tested
Immunogen	Human Cancer Cell Line	ICC	Not tested
Raised in	Mouse	ELISA	Not tested
Myeloma	P3U1	FCM	0.5-1.0 µg/mL
Clone number	WK4	Neutralization	Not tested
Isotype	IgG2a, κ	IP	5.0-10.0 µg/mL
Source	Serum Free Medium		
Purification notes	ProteinG		
Cross Reactivity	Not yet tested in other species.		
Concentration	0.25 mg/mL		
Contents (Volume)	50 µg (200 µL/vial)		
Label	Unlabeled		
Buffer	PBS [containing 2 % Block Ace as a stabilizer, 0.1 %Proclin as a bacteriostat]		
Storage	Store below -20 °C. Once thawed, store at 4 °C. Repeated freeze-thaw cycles should be avoided.		

## Note

CD98 (also known as 4F2) is widely expressed cell surface around 120-kDa heterodimeric protein. CD98 is composed a common type II transmembrane heavy chain of around 80-kDa (also known as CD98hc, 4F2hc or SLC3A2) and one of at least six light chains of around 40-kDa (LAT1, LAT2, γ-LAT1, γ-LAT2, xCT, asc) to form amino acid transporters. It is thought that the heavy chain is mainly involved in the trafficking of the complex to the plasma membrane, whereas the light chain catalyses the transport itself. CD98hc is a multifunctional glycoprotein, and was originally discovered as a T-cell activation antigen. CD98hc is highly expressed on proliferating lymphocytes, tumor cells and on the other rapidly-growing cells. It has also shown that CD98hc has an important role in integrin-dependent signals that promote tumorigenesis. This antibody is specific to human CD98hc and will be useful for FCM, immunoprecipitation.

CD98 (4F2) は、細胞膜上に幅広く発現している約 120 kDa のヘテロ 2 量体のタンパク質です。CD98 は、約 80 kDa の II 型膜貫通型タンパク質 CD98hc (重鎖: 4F2hc、SLC3A2) 及び 6 種類 (LAT1, LAT2, γ-LAT1, γ-LAT2, xCT, asc) ある約 40 kDa の軽鎖の 1 つからヘテロ 2 量体を構成し、アミノ酸トランスポーターとして機能します。重鎖は細胞膜に 2 量体を移動させる役割を持ち、軽鎖がトランスポーターの機能を持つと推定されています。CD98hc は、T 細胞活性化抗原として発見され、現在では様々な機能を持った糖タンパク質であることがわかっています。CD98hc は、増殖中リンパ球、腫瘍細胞、その他の増殖能の高い細胞で高発現しています。また CD98hc は、腫瘍形成を促進するインテグリン依存性シグナルに、重要な役割を果たすことも示されています。本抗体はヒトCD98hc に特異的な抗体であり、FCM、免疫沈降に使用できます。

## Reference

- |                         |   |  |
|-------------------------|---|--|
| 1 Nakamura E. et al.:   | 4F2 (CD98) heavy chain is associated covalently with an amino acid transporter and controls intracellular trafficking and membrane topology of 4F2 heterodimer. | J Biol Chem. 1999 Jan 29;274(5):3009-16.                               |
| 2 Nii T. et al.:        | Molecular events involved in up-regulating human Na <sup>+</sup> -independent neutral amino acid transporter LAT1 during T-cell activation.                     | Biochem J. 2001 Sep 15;358(Pt 3):693-704.                              |
| 3 Fenczik CA. et al.:   | Distinct domains of CD98hc regulate integrins and amino acid transport.   | J Biol Chem. 2001 Mar 23;276(12):8746-52. Epub 2000 Dec 19.            |
| 4 Henderson NC. et al.: | CD98hc (SLC3A2) interaction with beta 1 integrins is required for transformation.   | J Biol Chem. 2004 Dec 24;279(52):54731-41. Epub 2004 Oct 12.           |
| 5 Feral CC. et al.:     | CD98hc (SLC3A2) mediates integrin signaling.  | Proc Natl Acad Sci U S A. 2005 Jan 11;102(2):355-60. Epub 2004 Dec 29. |

## WARNING AND PRECAUTION

## 取り扱い上の注意

- Not for diagnostic use. The safety and efficacy of product in diagnostic or other clinical uses has not been established.
- Harmful by inhalation, in contact with skin and if swallowed. Do not breathe dust. Avoid contact with skin and eyes.
- If contact with skin and eyes, wash all affected areas with large volume of water. If inhaled remove to fresh air. In severe case obtain medical attention.
- Wash hand thoroughly after handling the product.
- Do not use this product if container is broken or some contaminants are detected.
- When preserving the product, close the container, ensure it does not fall aside or down.
- Dispose of the container and expired reagents in accordance with federal, state and local government regulations.
- Do not use the container and accessories of the product for other purpose.

この添付文書をよく読んでから使用して下さい。

- 本品は研究用試薬であり、医薬品その他の目的にはご使用になれません。
- 取り扱い中は皮膚、粘膜、着衣に触れたり、目に入らないように適切な措置を行って下さい。
- 試薬が誤って目や口に入った場合には、水で十分に洗い流すなどの応急処置を行い、必要があれば医師の手当を受けて下さい。
- 取り扱い後には手洗いを十分に行ってください。
- 容器の破損、異物混入等異常が認められた物は使用しないで下さい。
- 試薬を保管する場合は、蓋をし、転倒落下防止を確実にし、指定の貯蔵方法で保管して下さい。
- 使用後の容器は、廃棄物に関する規定に従って処理して下さい。
- 容器、付属品等の他目的への転用は保証できません。