CD98 (E-5): sc-376815

BACKGROUND

CD98 (4F2, CD98, MDU1, 4F2HC, 4T2HC, NACAE) is a disulfide-linked heterodimer composed of a glycosylated heavy chain and a non-glycosylated light chain. CD98 is a scaffolding protein that interacts with basolaterally expressed amino acid transporters and β1 integrins and can alter amino acid transport and cell adhesion, migration and branching morphogenesis. The heavy chain is a type II integral membrane protein. CD98 is expressed on T cells and is upregulated upon T cell activation. CD98 is also present on monocytes and at lower levels on granulocytes, platelets and lymphocytes. Evidence suggests that CD98 may play a role in the regulation of T cell activation and proliferation. Alternate transcriptional splice variants, encoding different isoforms exist for the human CD98 gene.

CHROMOSOMAL LOCATION

Genetic locus: SLC3A2 (human) mapping to 11q12.3.

SOURCE

CD98 (E-5) is a mouse monoclonal antibody raised against amino acids 230-529 of CD98 of human origin.

PRODUCT

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD98 (E-5) is available conjugated to agarose (sc-376815 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376815 HRP), 200 µg/ml, for WB, HRP/PE and ELISA; to either phycoerythrin (sc-376815 PE), fluorescein (sc-376815 FITC), Alexa Fluor® 488 (sc-376815 AF488), Alexa Fluor® 546 (sc-376815 AF546), Alexa Fluor® 594 (sc-376815 AF594) or Alexa Fluor® 647 (sc-376815 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FC; and to either Alexa Fluor® 680 (sc-376815 AF680) or Alexa Fluor® 790 (sc-376815 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

APPLICATIONS

CD98 (E-5) is recommended for detection of CD98 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD98 siRNA (h): sc-35033, CD98 shRNA Plasmid (h): sc-35033-SH and CD98 shRNA (h) Lentiviral Particles: sc-35033-V.

Molecular Weight of CD98: 125 kDa.

Positive Controls: U-937 cell lysate: sc-2239, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

CD98 (E-5) HRP: sc-376815 HRP. Direct western blot analysis of CD98 expression in U-937 (A), HeLa (B), Hep G2 (C), NCI-H292 (D), SK-MEL-24 (E) and A549 (F) whole cell lysates.

CD98 (E-5): sc-376815. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A), Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in tubules. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgG BP-B: sc-516142 and Immunocruz® ABC Kit: sc-516216 (B).

SELECT PRODUCT CITATIONS


RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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