

CD55 (Extracellular region)

Mouse Monoclonal IgG2a

Cat. # CM0021

Size 100 µl

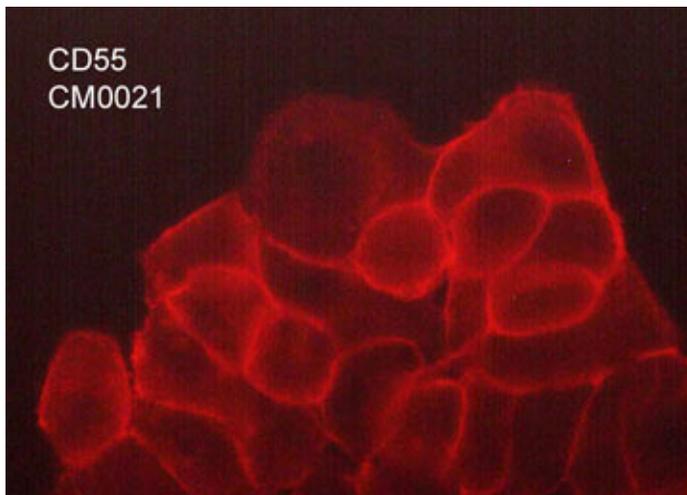
Background

CD55, also known as Decay-accelerating factor (DAF) is an inhibitor of the complement system, and is broadly expressed in malignant tumours. In cancer, CD55 has been implicated in tumorigenesis, neoangiogenesis, and metastasis. CD55 may decrease complement mediated tumor cell lysis, inhibit tumor apoptosis, and promote invasive cancer cell motility. These roles in cancer may involve binding to the seven-span transmembrane receptor CD97. In neuroblastoma cells, CD55 contributes to growth of colonies and to invasion of cells, but not to stemness. In neuroblastoma cells, CD55 is upregulated in a small population of cells that are HIF-2 α positive. This CD55 positive subpopulation is highly invasive and has low adhesion to fibronectin and collagen. In addition, CD55 expression correlates with poor prognosis in neuroblastoma patients.

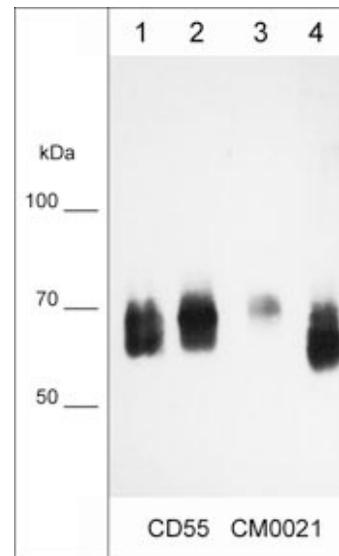
Background References

Mikesch JH et al.(2006) Cell Oncol. 28(5-6):223.

Cimmino F et al. (2016) Oncogenesis 5:e212.



Immunocytochemical labeling of CD55 in paraformaldehyde fixed human MDA-MB-231 breast cancer cells. The cells were labeled with mouse monoclonal anti-CD55 (CM0021). The antibody was detected using goat anti-mouse DyLight® 594.



Western blot analysis of native lysates: human A549 (lane 1), MDA-MB-231 (lane 2), and A431 (lane 3) cell lines, and lung tissue (lane 4). The blot was probed with mouse monoclonal anti-CD55 (CM0021) at 1:500.

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Immunogen

Clone M002 was generated from proprietary antigen related to the extracellular region of human CD55 from the MDA-MB-231 breast cancer cell line.

Buffer and Storage

Mouse monoclonal antibody purified with protein G chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

WB	1:500
ELISA	1:2000
ICC	1:100
IP	1:50

Species Reactivity

Hu

End user should determine optimal dilution for their particular applications and experiments.

Western blot membranes were incubated with diluted antibody in 5% non-fat milk, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

Clone M002 detects 60-80 kDa* bands corresponding to the molecular mass of CD55 on SDS-PAGE immunoblots of "native" A431, A549, and MDA-MB-231 cell lysates. The antibody also detects a "native" recombinant human CD55 extracellular region, but does not detect the denatured form of CD55. The antibody works for native western blot, immunoprecipitation, protein ELISA, and immunocytochemistry.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

- CM0331 CD55 (Extracellular region) Mouse Monoclonal
- CM0071 CD44 (Extracellular region) Mouse Monoclonal
- CM0111 CD59 (glycoprotein) Mouse Monoclonal
- CM0261 CD99 (Extracellular region) Mouse Monoclonal
- CM5911 CD44 (Hyaluron Binding Region) Mouse Monoclonal

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