

CD59 (glycoprotein)

Mouse Monoclonal IgG1

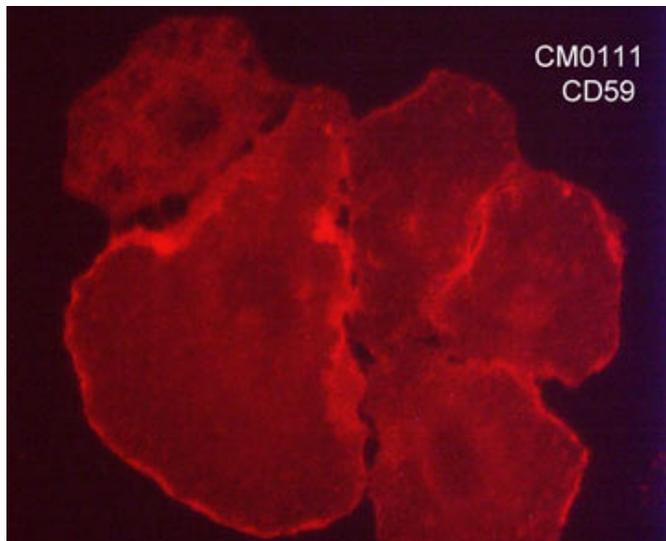
Cat. # CM0111
Size 100 µl

Background

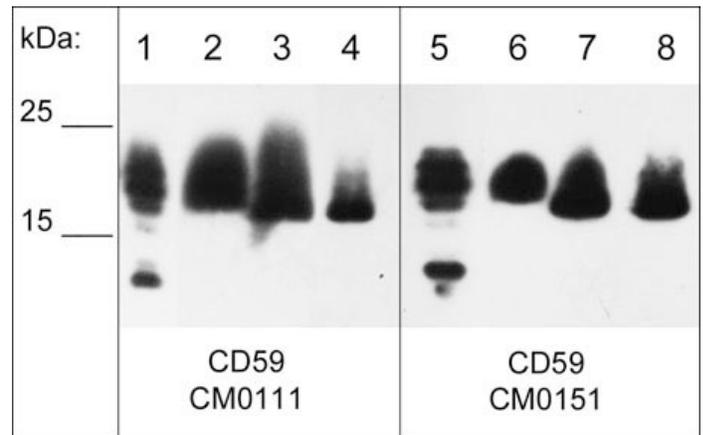
CD59 is a GPI-anchored membrane protein that is an inhibitor of the complement membrane attack complex (MAC). CD59 binds to complement components C8 and C9, preventing C9 polymerization and insertion into membranes. Rare cases of CD59 deficiency have been reported to cause paroxysmal nocturnal hemoglobinuria in human patients. Expression of CD59 on tumor cells and viral infected cells makes them resist antibody-dependent complement-mediated lysis. Inhibitors of CD59 expression or activity may suppress tumor cell resistance to complement-mediated attack, and these technologies have been actively pursued for therapeutic applications. In addition, CD59 may regulate insulin secretion by modulating exocytosis, and a glycosylated form of CD59 with no MAC inhibitory activity is found in diabetic patients.

Background References

Sugita, Y & Masuho, Y (1995) Immunotechnology 1:157.
Mevorach, D (2015) Mol Immunol. 67:51.
Ghosh P et al. (2015) Endocr Rev. 36(3):272.



Immunocytochemical labeling of CD59 in paraformaldehyde fixed human A549 cells. The cells were labeled with mouse monoclonal anti-CD59 (clone M011). The antibody was detected using goat anti-mouse Ig DyLight® 594.



Western blot analysis of recombinant human CD59 protein (lanes 1 & 5), A431 (lanes 2 & 6), A549 (lanes 3 & 7), and MCF7 (lanes 4 & 8) whole cell lysates under native conditions. The blots were probed with mouse monoclonal anti-CD59 (CM0111) at 1:1000 (lanes 1-4) and anti-CD59 (CM0151) at 1:1000 (lanes 5-8).

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Rev 3/21/2018

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Size 100 µl

Immunogen

Clone M011 was generated from a proprietary antigen related to the mature form of human CD59 from the MDA-MB-231 breast carcinoma cell line.

Buffer and Storage

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

Applications

WB	1:1000
ELISA	1:2000
ICC	1:100
IP	1:100

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 M011 detects 15-20 kDa* bands corresponding to CD59 on SDS-PAGE immunoblots of native human MDA-MB-231, A549, A431, and MCF7 cell lysates, as well as recombinant human CD59 protein. The antibody does not detect denatured CD59. The antibody can be used for multiple applications including ELISA, western blot, immunocytochemical labeling and immunoprecipitation. In addition, the antibody labels live, unfixed A549 and MeWo cells.

*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

- CM0151 CD59 (glycoprotein) Mouse Monoclonal
- CM0101 CD44 (Extracellular region) Mouse Monoclonal
- CM5881 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- CM0331 CD55 (Extracellular region) Mouse Monoclonal
- CM0011 CD98 (Extracellular region) Mouse Monoclonal

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