

### Background

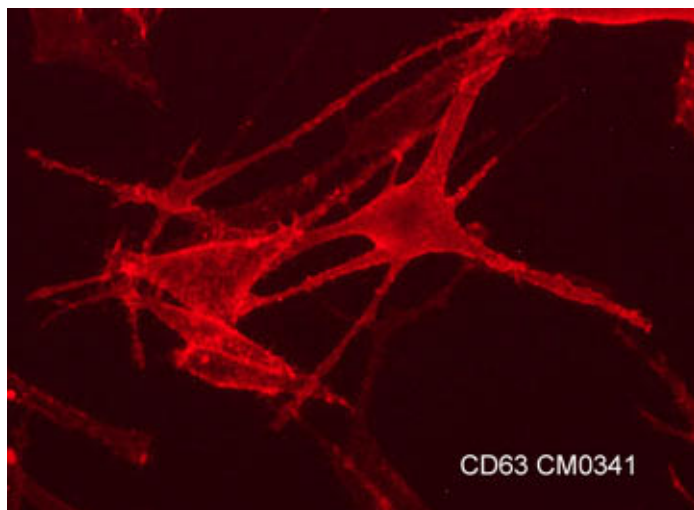
Tetraspanins comprise a large superfamily of cell surface-associated membrane proteins with four transmembrane domains. On cell membranes, tetraspanins form networks of various proteins called tetraspanin-enriched microdomains (TEMs). CD63 was the first characterized tetraspanin and it is found in TEMs, as well as late endosomes and lysosomes. In late endosomes, CD63 is enriched on the intraluminal vesicles, and can be secreted as exosomes through fusion of endosomes with the plasma membrane. The complex localization pattern of CD63 suggests that its intracellular trafficking and distribution must be tightly regulated. CD63 contains N-link glycosylation sites that produce diverse CD63 molecules that range from 30 to 60 kDa depending on cell type. CD63 is an important exosomal marker in cancer cells, and may be involved in cancer progression and metastasis.



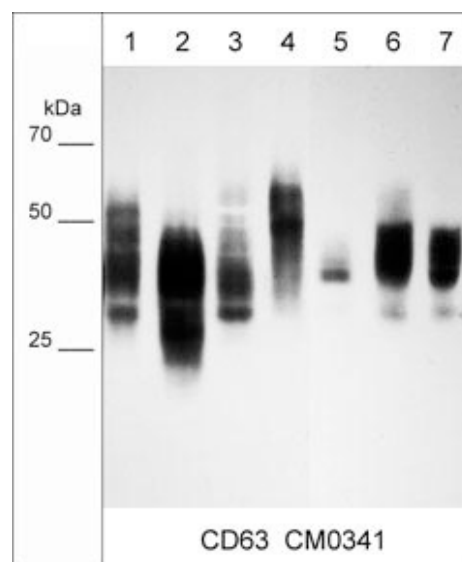
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### Background References

- Metzelaar, M.J. et al. (1991) J Biol Chem. 266(5):3239.  
 Azorsa, D.O. et al. (1991) Blood. 78(2):280.  
 Pols, MS & Klumperman, J (2009) Exp Cell Res. 315(9):1584.



Immunocytochemical labeling of CD63 in paraformaldehyde fixed human MeWo melanoma cells. The cells were labeled with mouse monoclonal CD63 (CM0341). The antibody was detected using goat anti-mouse Ig DyLight® 594.



Western blot of native human cell and tissue lysates: A549 (lane 1), and A549 treated with PNGase F (lane 2), MDA-MB-231 (lane 3), MCF7 (lane 4), breast (lane 5), lung (lane 6), and skin (lane 7). The blot was probed with mouse monoclonal CD63 (CM0341) at 1:1000.

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### Immunogen

Uniprot ID: P08962

Clone (M034) was generated from a proprietary antigen related to the native human CD63 expressed in MeWo melanoma 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	1:2000
ELISA (Cap)	1:100
ICC	1:100
IP	1:100

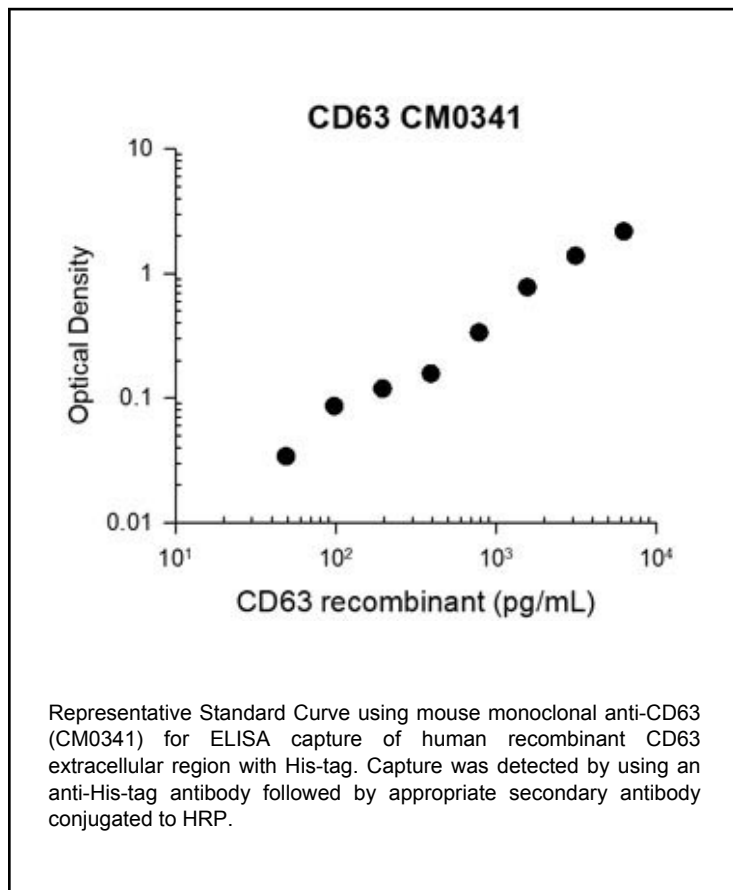
### Species Reactivity

Hu

**Isotype:** IgG1

End user should determine optimal dilution for their particular applications. 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, ELISA (Cap) = ELISA Capture 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 M034 mouse monoclonal antibody detects a 30-60 kDa\* protein on SDS-PAGE "Native" immunoblots of human A549, MeWo, MDA-MB-231, and MCF7 cells, as well as human breast, lung, and skin tissues. This antibody does not detect denatured CD63. The antibody works for western blot, immunoprecipitation, 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

- CM0401 CD63 (Extracellular region) Mouse Monoclonal
- CM0071 CD44 (Extracellular region) Mouse Monoclonal
- CM5881 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- CM0111 CD59 (glycoprotein) Mouse Monoclonal
- CM0331 CD55 (Extracellular region) Mouse Monoclonal
- CM0301 CD99 (Extracellular region) Mouse Monoclonal



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