

### Background

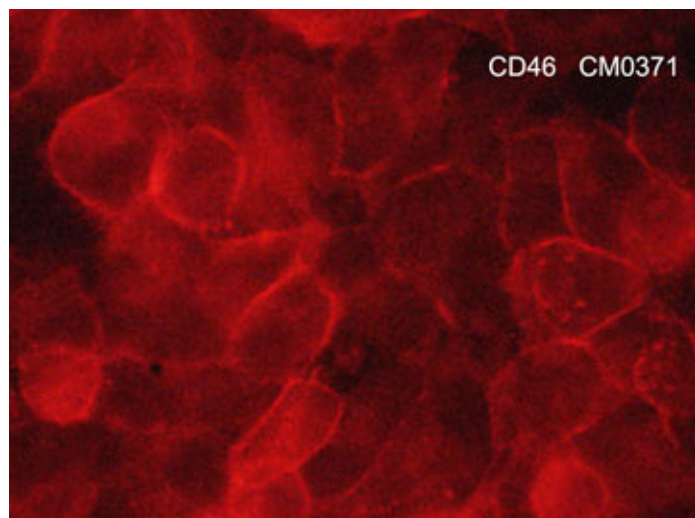
CD46 is a complement regulatory protein that is also called membrane cofactor protein. This protein is a type 1 membrane protein that plays an important inhibitory role in the complement system. CD46 exhibits a cofactor activity that promotes inactivation of C3b and C4b by serum factor 1, thereby protecting host cells from complement-dependent cytotoxicity. CD46 can also function as a receptor for selected bacteria and viruses, and is reportedly required for proper fusion of spermatozoa to the oocyte membrane during fertilization. CD46 is overexpressed in medulloblastoma tumors, and CD46 expression has been linked with poor prognosis in breast cancer. The upregulation of CD46 may protect cancer cells from complement-dependent cytotoxicity to facilitate cancer cell immune evasion.



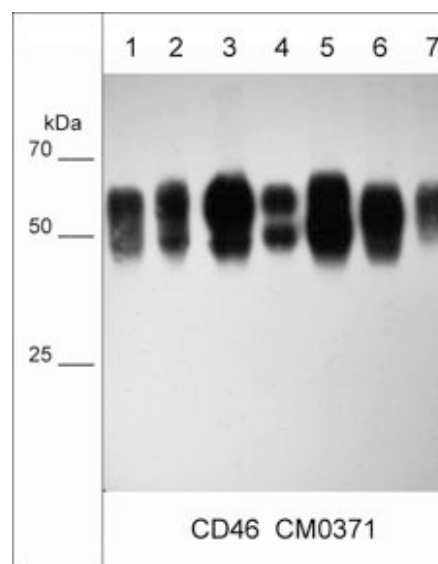
**Guaranteed  
to  
Outperform**

### Background References

- Liszewski, M.K. et al. (1991) *Annu Rev Immunol*. 9:431.  
Yamamoto H et al. (2013) *Int J Biochem Cell Bio* 45(12):2808.



Immunocytochemical labeling of CD46 in aldehyde fixed human NCI-H1915 lung carcinoma cells. The cells were labeled with mouse monoclonal anti-CD46 (CM0371). The antibody was detected using goat anti-mouse Ig:DyLight® 594.



Western blot of native lysates from NCI-H2052 mesothelial cells (lane 1), SK-MES-1 squamous carcinoma (lane 2), MDA-MB-231 breast carcinoma (lane 3), MeWo melanoma (lane 4), A431 skin adenocarcinoma (lane 5), LNCaP prostate cancer cells (lane 6), and MCF7 breast cancer cells (lane 7). The blot was probed with mouse monoclonal anti-CD46 (CM0371) at 1:1000.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

### Immunogen

Uniprot ID: P15529

Clone (M037) was generated from a proprietary antigen related to native human CD46 expressed in NCI-H1915 lung 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	1:1000
ELISA (Cap)	1:100
ICC	1:100
IP	1:100

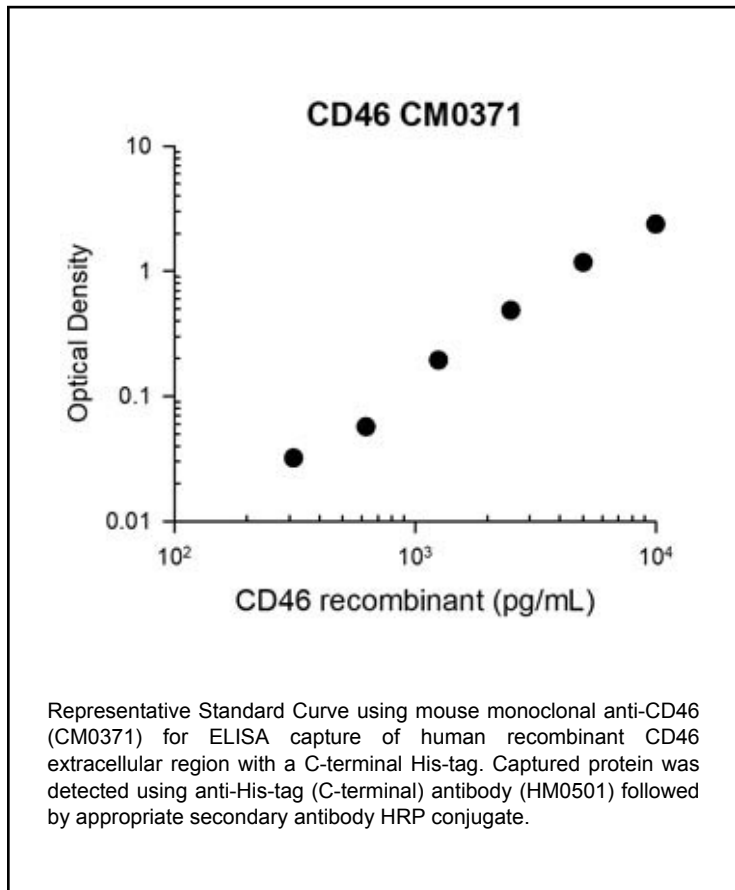
### Species Reactivity

Hu

**Isotype:** IgG2b

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 M037 mouse monoclonal antibody detects a 45-60 kDa\* protein on SDS-PAGE "Native" immunoblots of human A549, MeWo, MDA-MB-231, and MCF7 cells, as well as human lung tissues. This antibody weakly detects denatured CD46. The antibody works for western blot, immunoprecipitation, ELISA capture, 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

- CM0361 CD147/Emmprin/Basigin (Extracellular region) Mouse Monoclonal
- CM0521 CD147/Emmprin/Basigin (Extracellular region) Mouse Monoclonal
- CM0021 CD55 (Extracellular region) Mouse Monoclonal
- CM0301 CD99 (Extracellular region) Mouse Monoclonal
- CM5911 CD44 (Hyaluron Binding Region) Mouse Monoclonal



FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.