

Store at  
-20°C

# MCAM Antibody

#68706

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orders@cellsignal.comEntrez-Gene ID #4162  
UniProt ID #P43121

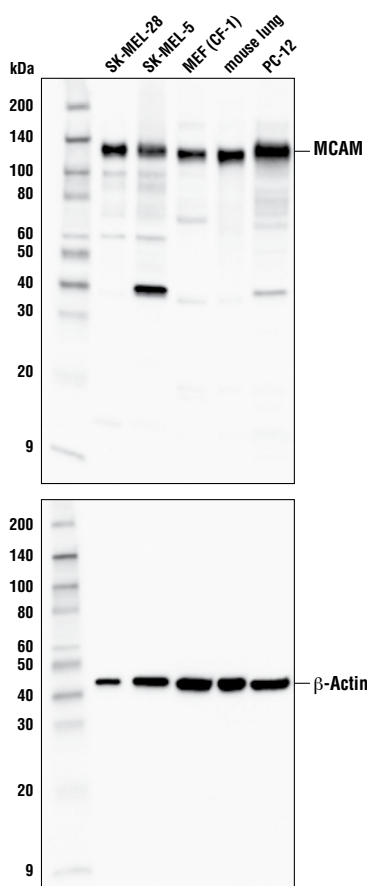
New 03/19

**For Research Use Only. Not For Use In Diagnostic Procedures.****Applications**  
W, IP  
Endogenous**Species Cross-Reactivity\***  
H, M, R**Molecular Wt.**  
120 kDa**Source**  
Rabbit\*\*

**Background:** Melanoma cell adhesion molecule (MCAM, MUC18, CD146) is an immunoglobulin superfamily member originally described as a cell surface adhesion protein and marker of the progression and metastasis of melanoma (1,2). Expression of MCAM protein is seen in vascular endothelial cells, activated T lymphocytes, smooth muscle, and bone marrow stromal cells. Research studies demonstrate increased MCAM expression in endothelial cells from angiogenesis-related disorders, including inflammatory bowel disease, Crohn's disease, rheumatoid arthritis, tumors, and chronic renal failure (3). MCAM-expressing human mesenchymal stromal cells (hMSC) in the hematopoietic microenvironment are responsible for maintaining the self-renewal of hematopoietic stem and progenitor cells (HSPC) through direct contact between hMSC and those cells (2). Related studies suggest that activation of the Notch signaling pathway may also, in part, play a role in HSPC maintenance (4). Additional research indicates that MCAM may play a role in multiple sclerosis, an autoimmune inflammatory disease that affects central nervous system neurons. Endothelial MCAM within the blood-brain barrier act as adhesion receptors that permit lymphocytes to transigrate across the barrier and produce the inflammatory lesions that characterize the disorder (5).

**Specificity/Sensitivity:** MCAM Antibody recognizes endogenous levels of total MCAM protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu600 of human MCAM protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various tissue and cell lines using MCAM Antibody (upper) and  $\beta$ -Actin (D6A8) Rabbit mAb #8457 (lower).

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

Immunoprecipitation 1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com).

**Background References:**

- (1) Shih, I.M. (1999) *J Pathol* 189, 4-11.
- (2) Stopp, S. et al. (2013) *Haematologica* 98, 505-13.
- (3) Wang, P. et al. (2013) *Mol Cell Biol* 33, 3689-99.
- (4) Corselli, M. et al. (2013) *Blood* 121, 2891-901.
- (5) Duan, H. et al. (2013) *Sci Rep* 3, 1687.

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**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween<sup>®</sup>20 at 4°C with gentle shaking, overnight.**

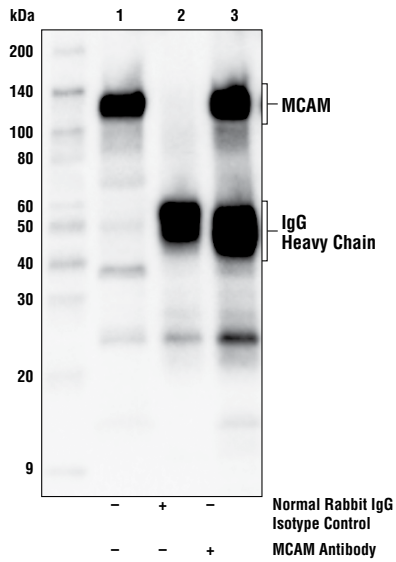
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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected **Species** enclosed in parentheses are predicted to react based on 100% homology.



Immunoprecipitation of MCAM protein from NCI-H460 cell extracts. Lane 1 is 10% input, lane 2 is Normal Rabbit IgG #2729, and lane 3 is MCAM Antibody. Western blot analysis was performed using MCAM Antibody as the primary antibody. Anti-rabbit IgG, HRP-linked Antibody #7074 was used as a secondary antibody.

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