

Store at
-20C

#68706

MCAM Antibody



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	120	Rabbit	#P43121	4162

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

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.

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 HSPC (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 transmute across the barrier and produce the inflammatory lesions that characterize the disorder (5).

Background References

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

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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