

## Recombinant Human MCAM Protein, C-His-tagged

Cat. No. MCAM-099H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| Product Overview | Recombinant Human MCAM Protein with C-His tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Description      | <p>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. 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. 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. Related studies suggest that activation of the Notch signaling pathway may also, in part, play a role in HSPC maintenance. 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 transmigrate across the barrier and produce the inflammatory lesions that characterize the disorder.</p> |

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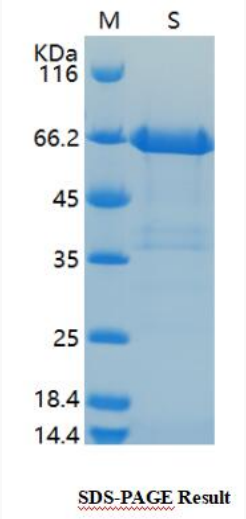
 45-1 Ramsey Road, Shirley, NY 11967, USA

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|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b>   | ~59 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>AA Sequence</b>      | VPGEAEQPAPELVEVEVGSTALLKCGLSQSQGNLSHVDWFSVHKEKRTLIFRVRQG<br>QGQSEPGEYEQRLSLQDRGATLALTQVTPQDERIFLCQGKRPRSQYRIQLRVYKA<br>PEEPNIQVNPLGIPVNSKEPEEVATCVGRNGYPIPVQVIWYKNGRPLKEEKNRVHIQS<br>SQTVESSGLYTLQSILKAQLVKEDKDAQFYCELNYRLPSGNHMKESREVTVPVFYPT<br>EKVWLEVEPVGMLKEGDRVEIRCLADGNPPPHFSISKQNPSTREAAEEETTNDNGVL<br>VLEPARKEHSGRYECQGLDLDTMISLLSEPQELLVNYVSDVRVSPAAPERQEGSSLT<br>LTCEAESSQDLEFQWLREETGQVLERGPVLQLHDLKREAGGGYRCVASVPSIPGLN<br>RTQLVNVAIFGPPWMAFKERKVVWKENMVLNLSCEASGHRPTISWNVNGTASEQ<br>DQDPQRVLSTLNVLTPELLETGVECTASNDLGKNTSILFLELVNLTTLTPDSNTTTG<br>LSTSTASPHTRANSTSTERKLPEPESRG |
| <b>Purity</b>           | Transferred into competent cells and the supernatant was purified by NI column affinity chromatography and the purity is > 85% (by SDS-PAGE).                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Notes</b>            | For research use only, not for use in diagnostic procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>          | Store at 4 centigrade short term. Aliquot and store at -20 centigrade long term. Avoid freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Concentration</b>    | ≥0.5 mg/mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Buffer</b>   | PBS, 4M Urea, pH7.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Gene Name</b>        | MCAM melanoma cell adhesion molecule [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Official Symbol</b>  | MCAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>       | MCAM; melanoma cell adhesion molecule; cell surface glycoprotein MUC18; CD146; Gicerin; MUC18; melanoma adhesion molecule; cell surface glycoprotein P1H12; melanoma-associated antigen A32; melanoma-associated antigen MUC18; S-endo 1 endothelial-associated antigen; |
| <b>Gene ID</b>        | 4162                                                                                                                                                                                                                                                                     |
| <b>mRNA Refseq</b>    | NM_006500                                                                                                                                                                                                                                                                |
| <b>Protein Refseq</b> | NP_006491                                                                                                                                                                                                                                                                |
| <b>MIM</b>            | 155735                                                                                                                                                                                                                                                                   |
| <b>UniProt ID</b>     | P43121                                                                                                                                                                                                                                                                   |
| <b>SDS-PAGE</b>       |                                                                                                                                                                                      |