

# Active Recombinant Human Mucosal Vascular Addressin Cell Adhesion Molecule 1, Fc-tagged

**Cat. No.** MADCAM1-5684H    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <b>Product Overview</b>    | Recombinant Human MADCAM1 protein was expressed in Murine myeloma cell line with the Fc part of human IgG1 Pro100-Lys330 (N-terminus) and Met1-Gln333 (C-terminus).                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>              | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Length</b>      | 1-333 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>         | MADCAM1 is an approximately 60 kDa type 1 transmembrane glycoprotein. It is an endothelial cell adhesion molecule that belongs to the immunoglobulin superfamily of proteins. Human MADCAM1 is synthesized as a 382 amino acid precursor that contains an 18 aa signal sequence, a 299 aa extracellular domain, a 21 aa transmembrane segment, and a 44 aa cytoplasmic tail. Within the ECD there is one potential site for N-linked glycosylation. The ECD comprises two Ig-like domains of 90 aa and 119 aa, respectively, each possessing invariant cysteine residues that stabilize the Ig loop. |
| <b>Form</b>                | Lyophilized from a 0.2 µm filtered solution in PBS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>N-terminal Sequence</b> | Val23 & Glu29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Weight</b>    | 59.3 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Activity</b>        | Measured by the ability of the immobilized protein to support the adhesion of HUT78 human mature cutaneous T cell lymphoma cells. When $5 \times 10^4$ cells/well are added to recombinant human MADCAM1/Fc Chimera coated plates ( $2.5 \mu\text{g/mL}$ with $100 \text{ L/well}$ ), approximately 50%-70% will adhere after 1 hour incubation at $37^\circ\text{C}$ in the presence of $1 \text{ mM MnCl}_2$ . |
| <b>Endotoxin Level</b> | <1.0 EU per $1 \mu\text{g}$ of the protein by the LAL method.                                                                                                                                                                                                                                                                                                                                                    |
| <b>SDS-PAGE</b>        | 85-100kDa, reducing conditions.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>          | >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.                                                                                                                                                                                                                                                                                                                                      |
| <b>Reconstitution</b>  | $200 \mu\text{g/mL}$ in PBS                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>         | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, $-20$ to $-70^\circ\text{C}$ as supplied. 1 month, $2$ to $8^\circ\text{C}$ under sterile conditions after reconstitution. 3 months, $-20$ to $-70^\circ\text{C}$ under sterile conditions after reconstitution.                                                                                             |

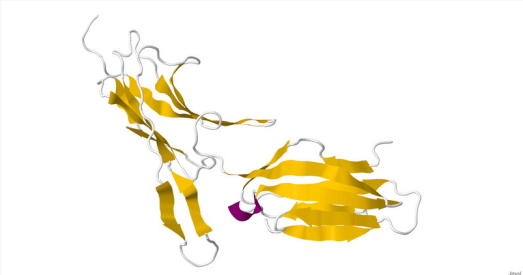
## GENE INFORMATION

|                        |                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | MADCAM1 mucosal vascular addressin cell adhesion molecule 1 [ Homo sapiens ]                                                                                                      |
| <b>Official Symbol</b> | MADCAM1                                                                                                                                                                           |
| <b>Synonyms</b>        | MADCAM1; mucosal vascular addressin cell adhesion molecule 1; MACAM1; mucosal addressin cell adhesion molecule 1; MAdCAM-1; hMAdCAM-1; mucosal addressin cell adhesion molecule-1 |
| <b>Gene ID</b>         | 8174                                                                                                                                                                              |

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| <b>mRNA Refseq</b>                                                                    | NM_130760                                                                                                                                                                                                                                                                                                 |
| <b>Protein Refseq</b>                                                                 | NP_570116                                                                                                                                                                                                                                                                                                 |
| <b>MIM</b>                                                                            | 102670                                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID</b>                                                                     | Q13477                                                                                                                                                                                                                                                                                                    |
| <b>Chromosome Location</b>                                                            | 19p13.3                                                                                                                                                                                                                                                                                                   |
| <b>Pathway</b>                                                                        | Adaptive ImmuneSystem; Cell adhesion molecules (CAMs); Immune System; Immunoregulatoryinteractions between a Lymphoid and a non-Lymphoid cell; Integrin cellsurface interactions; Intestinal immune network for IgA production;Paxillin-independent events mediated by a4b1 and a4b7; Signal Transduction |
| <b>Crystallographicstructure of human mucosal addressin cell adhesion molecule 1.</b> |                                                                                                                                                                                                                       |