

Endothelial Molecules and the Control of Leukocyte Extravasation - MECA-79, MECA-89 and MECA-367

MECA-79 (ATCC Number: HB-9479)

Monoclonal antibody MECA-79 to the mouse and human peripheral lymph node vascular addressin. MECA-79 defines a tissue-selective high endothelial venule determinant, selectively expressed by HEV in peripheral lymph nodes and sites of chronic inflammation in man, that is an endothelial cell ligand for the peripheral lymph node homing receptor described above. MECA-79 blocks lymphocyte trafficking to peripheral lymph nodes when injected intravenously in mice, and blocks lymphocyte binding to high endothelial venules in frozen sections. The isolated MECA-79 antigen binds lymphocytes that express lymph node homing receptors. This vascular addressin is expressed at only low levels by venules in mucosal lymphoid tissues, and is absent from vessels that support mucosal lymphocyte traffic into the lamina propria and other extralymphoid mucosal sites.

MECA-89 (ATCC Number: HB-292)

Rat IgG2a monoclonal antibody MECA-89 binds the second Ig domain of the mucosal vascular addressin, MAdCAM-1. Unlike MECA-367, MECA-89 does not block $\alpha 4\beta 7$ -dependent binding in vitro (although apparently through redistribution it depresses MAdCAM-1 function as an L-selectin ligand in Peyer's patch-HEV in vivo). MAdCAM-1 is an Ig family member preferentially expressed in mucosal lymphoid tissues and lamina propria. It is a predominant ligand for the lymphocyte mucosal homing receptor $\alpha 4\beta 7$.

MECA-367 (ATCC Number: HB-9478)

Anti-mouse mucosal vascular addressin, MAdCAM-1. Rat IgG2A. Recognizes the N-terminal Ig domain involved in $\alpha 4\beta 7$ integrin binding. MAdCAM-1 is an Ig family member preferentially expressed in mucosal lymphoid tissues and lamina propria. It is a ligand for the lymphocyte mucosal homing receptor $\alpha 4\beta 7$, and can also be

decorated on high endothelial venules by L-selectin-binding carbohydrate determinants.

Publications

- Nature. Vol. 363, 3 June 1993. pp.461-464.
- J. Cell Biol. 107:1853-1862, 1988
- Immunol. Reviews 108:5-18,1989

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