Docket #: S02-059

Anti-CCRL2 Monoclonal Antibody, BZ2E3 cell line

Dr. Brian Zabel and Prof. Eugene Butcher have developed rat monoclonal antibodies (clones BZ2E3 and BZ5B8, rIgG$_{2a}$κ isotype) to the mouse chemokine (CC motif) receptor-like 2 (CCRL2) protein. CCRL2 (formerly known as L-CCR) is expressed on mast cells, activated macrophages, and endothelial cells. It binds the leukocyte chemoattractant chemerin without triggering classical GPCR signaling, providing a specific mechanism for local enrichment of chemerin at inflammatory sites. CCRL2 presents active chemerin to leukocytes expressing the chemoattractant receptor CMKLR1/Chemr23. These anti-CCRL2 antibodies can be used in wide variety of assays to study leukocytes and immune response. Chemerin can block anti-CCRL2 antibody binding.

Applications

- **Research** - antibodies are fully validated for flow cytometry and immunofluorescence.

Publications

- Pachynski RK, Zabel BA, Kohrt HE, Tejeda NM, Monnier J, Swanson CD, Holzer AK, Gentles AJ, Sperinde GV, Edalati A, Hadeiba HA, Alizadeh AA, Butcher EC. "The chemoattractant chemerin suppresses melanoma by recruiting natural killer cell antitumor defenses." *J Exp Med.* 2012 Jul 30;209(8):1427-35. doi: 10.1084/jem.20112124. Epub 2012 Jul 2.
- Monnier J, Lewén S, O'Hara E, Huang K, Tu H, Butcher EC, Zabel BA. "Expression, Regulation, and Function of Atypical Chemerin Receptor CCRL2 on Endothelial Cells." *J Immunol.* 2012 Jul 15;189(2):956-67. Epub 2012 Jun 13.

- Zabel BA, Nakae S, Zúñiga L, Kim JY, Ohyama T, Alt C, Pan J, Suto H, Soler D, Allen SJ, Handel TM, Song CH, Galli SJ, Butcher EC. "Mast cell-expressed orphan receptor CCRL2 binds chemerin and is required for optimal induction of IgE-mediated passive cutaneous anaphylaxis." *J Exp Med.* 2008 Sep 29;205(10):2207-20. Epub 2008 Sep 15.

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