

## Ultra-LEAF™ Purified anti-mouse CCL20 (MIP-3α) Antibody

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| <b>Catalog# / Size</b>   | 942903 / 100 µg<br>942904 / 1 mg   |
| <b>Clone</b>             | A16054H  |
| <b>Regulatory Status</b> | RUO  |
| <b>Other Names</b>       | Macrophage inflammatory protein-3α (MIP-3α)  |
| <b>Isotype</b>           | Rat IgG2a, κ   |
| <b>Description</b>       | <p>CCL20 (MIP-3α) belongs to the CC chemokine family. Human CCL20 is a protein of 96 amino acids, which shares the highest homology of 28% amino acid identity with MIP-1β and 64% amino acid sequence identity with the mouse CCL20. CCL20 is produced by activated monocytes, T cells, neutrophils, endothelial cells, epithelial cells and fibroblasts. Its expression is induced by lipopolysaccharide (LPS) and inflammatory cytokines such as tumor necrosis factor, IL-1β and interferon-γ, and downregulated by IL-10. CCL20 is the ligand for chemokine receptor CCR6, which is expressed on memory T cells, B cells, and immature dendritic cells (DCs). Therefore, it is involved in the regulation of DC trafficking and recruitment and activation of T cells. CCL20 also has potent antimicrobial activity. Upregulation of CCL20 plays important roles in autoimmune processes. This includes pathologies of the central nerve system (MS), pathogenesis of encephalomyelitis, psoriasis, rheumatoid arthritis, and inflammatory bowel diseases. CCL20 is also involved in various cancers, such as gastrointestinal cancers, pancreatic cancer, hepatocellular carcinoma, and breast cancer.</p> |

### Product Details

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| <b>Reactivity</b>             | Mouse  |
| <b>Antibody Type</b>          | Monoclonal   |
| <b>Host Species</b>           | Rat  |
| <b>Immunogen</b>              | Recombinant mouse CCL20 (MIP-3α)   |
| <b>Formulation</b>            | 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.   |
| <b>Preparation</b>            | The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.  |
| <b>Concentration</b>          | The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.                 |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.   |
| <b>Application</b>            | <a href="#">Neut - Quality tested</a>  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by neutralization of the chemotaxis induced by recombinant mouse CCL20 (MIP-3α) (Cat. No. 582306) at 0.3 ng/mL on mouse Baf3-hCCR6 transfectant chemoattractant cells. ND <sub>50</sub> range: 0.08 - 0.4 µg /mL. It is recommended that the reagent be titrated for optimal performance for each application. |
| <b>RRID</b>                   | AB_2894527 (BioLegend Cat. No. 942903)<br>AB_2894527 (BioLegend Cat. No. 942904)   |

### Antigen Details

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|---------------------|--|
| <b>Structure</b>    | Chemokine  |
| <b>Distribution</b> | Monocytes, T cells, neutrophils, endothelial cells, fibroblasts, keratinocytes, synoviocytes, DCs, |

pulmonary and intestinal epithelial cells, dermal microvascular endothelial cells

#### Function

Chemoattracts immature dendritic cells at sites of injury, upregulated by mediators of inflammation such as TNF or LPS, induced by Th17 cytokines (IL-17A, IL-22, and TNF- $\alpha$ ) in keratinocyte.

#### Interaction

T cells, Th17, Tregs, B cells, DC subsets including CD11b+ CD8 $\alpha$ -myeloid DCs, Langerhans cells (LC), CD34+ cell-derived immature myeloid DCs, and immature monocyte-derived DCs

#### Ligand/Receptor

CCR6 (CD196)

#### Antigen References

1. Varona R, *et al.* 1998. *FEBS Lett.* 440:188.
2. Homey B, *et al.* 2000. *J Immunol.* 164:6621.
3. Hoover DM, *et al.* 2002. *J Biol Chem.* 277:37647.
4. Hirota K, *et al.* 2007. *J Exp Med.* 204:2803.
5. Harper EG, *et al.* 2009. *J Invest Dermatol.* 129:2175.
6. Ito T, *et al.* 2011. *Exp Cell Res.* 317:613.

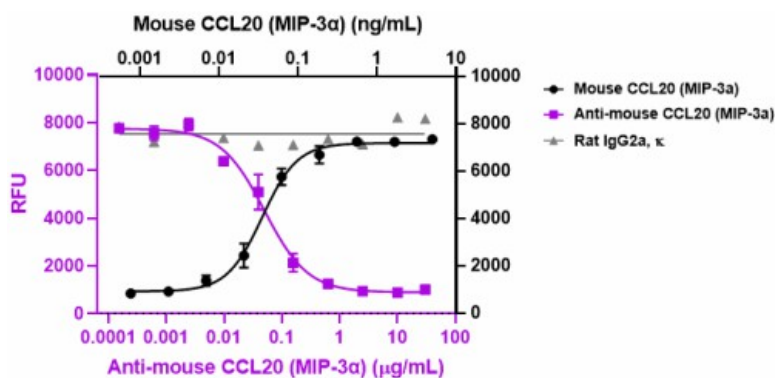
#### Gene ID

[20297](#)

## Other Formats

Ultra-LEAF™ Purified anti-mouse CCL20 (MIP-3 $\alpha$ )

## Product Data



Recombinant mouse CCL20 (MIP-3 $\alpha$ ) (Cat. No. 582306) (black circles) induces the chemotaxis of mouse Baf3-hCCR6 transfectant chemoattractant cells. Ultra-LEAF™ purified anti-mouse CCL20 (MIP-3 $\alpha$ ) antibody (clone A16054H) (purple squares) neutralizes the chemotaxis of recombinant mouse CCL20 (MIP-3 $\alpha$ ) at 0.3 ng/mL on mouse Baf3-hCCR6 cells in a dose-dependent manner whereas the GolnVivo™ purified rat IgG2a,  $\kappa$  isotype ctrl antibody (Cat. No. 400562) (gray triangles) does not have the effect. ND<sub>50</sub> range: 0.08 - 0.4  $\mu$ g/mL.

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