

## Anti-CCL2 [CNTO 888 (Carlumab)] Standard Size Ab02245-3.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric mouse antibody was made using the variable domain sequences of the original Human IgG1 format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse IgG2b, Fc Silent™, Kappa

**Clone Number:** CNTO 888 (Carlumab)

**Alternative Name(s) of Target:** MCP-1; MCP1; HC11; MCAF; C-C motif chemokine 2; monocyte chemoattractant protein 1; monocyte chemotactic and activating factor; Monocyte chemotactic protein 1; Monocyte secretory protein JE; Small-inducible cytokine A2

**UniProt Accession Number of Target Protein:** P13500

**Published Application(s):** inhibit, therapeutic, Block

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by phage display using the Human Combinatorial Antibody Library (HuCAL GOLD).

**Specificity:** This antibody specifically binds human CCL2 and does not cross react with mouse CCL2 or other human CC chemokines. It is reported that CNTO 888 recognizes a conformational epitope encompassing residues 18-24 and 45-51 that overlaps the mapped receptor binding site.

**Application Notes:** CCL2 is implicated in the pathogenesis of certain inflammatory diseases and cancer. Binding of CCL2 to its receptor CCR2 triggers calcium mobilization and chemotaxis. CNTO 888 is a neutralizing anti-CCL2 antibody that binds human CCL2 with high affinity of  $K_d=22\text{pM}$  and inhibits CCL2 binding to its receptor. The systemic administration of anti-CCL2 neutralizing antibodies (CNTO888 and C1142) significantly retarded tumor growth and attenuated CD68+ macrophage infiltration, which was accompanied by a significant decrease in microvascular density (PMID: 17710158). Phase 1 trials in 44 patients with solid tumors concluded that CNTO888 was well tolerated in individuals with evidence of transient free CCL2 suppression and preliminary antitumor activity (PMID: 23385782). This antibody was also capable of inhibiting growth of breast cancer when administered individually or as a cocktail (Campion et al, 2009). A phase 2 study in 46 patients with castration-resistant prostate cancer (CRPC) concluded that carlumab was well-tolerated but did not block the CCL2/CCR2 axis or show antitumor activity as a single agent in metastatic CRPC (PMID: 22907596).

**Antibody First Published in:** Loberg et al. CCL2 as an important mediator of prostate cancer growth in

vivo through the regulation of macrophage infiltration. Neoplasia. (2007); 9(7): 556–562. [PMID:17710158](#)

**Note on publication:** Describes the use of this antibody for retarding the tumor growth in prostate cancer.

## Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.