

Anti-CCL2 [CNTO 888 (Carlumab)] Standard Size Ab02245-10.3

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

Isotype and Format: Human IgG1, 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.