

Anti-CCR2 [MLN1202 (Plozalizumab, hu1D9)] Standard Size Ab04182-10.0

Isotype and Format: Human IgG1, Kappa

Clone Number: MLN1202 (Plozalizumab, hu1D9)

Alternative Name(s) of Target: CD192; C-C chemokine receptor type 2; C-C CKR-2; CC-CKR-2; CCR-2; Monocyte chemoattractant protein 1 receptor; MCP-1-R; CMKBR2; MLN-1202; 4.9.2; LS132.1D9

UniProt Accession Number of Target Protein: P41597

Published Application(s): therapeutic, Block, FC

Published Species Reactivity: Human

Immunogen: The parental mouse antibody 1D9 was generated by immunizing mice with L1.2 transfectants expressing CCR2. The original humanized version of the antibody was generated by grafting CDRs of the mouse antibody 1D9 onto human framework regions.

Specificity: This antibody binds and epitope between amino acids 1-30 in the amino terminal region of human CC-chemokine receptor 2. CCR2 receptor is a key functional receptor for CCL2, a chemokine which specifically mediates monocyte chemotaxis. CCL2 is involved in monocyte infiltration in inflammatory diseases such as rheumatoid arthritis as well as in the inflammatory response against tumors. It can also bind CCL7 and CCL12. It further regulates the expression of T-cell inflammatory cytokines and T-cell differentiation, promoting the differentiation of T-cells into T-helper 17 cells (Th17) during inflammation.

Application Notes: The binding characterization of the original mouse parental antibody 1D9 for human CCR2 was done using flow cytometry. This humanized antibody was capable of inhibit the binding of [125I]-MCP-1 to whole THP-1 cells (US6696550). In a clinical trial study, in patients with active rheumatoid arthritis (RA), it was reported that treatment with anti-CCR2 blocking antibody did not result in amelioration of synovial inflammation in active RA (PMID: 18576354). In a study in patients with risk factors for atherosclerotic cardiovascular disease (ASCVD), it was reported that that blockade of CCR2 with MLN1202 reduces C-reactive protein, a biomarker related to inflammation in patients at risk for ASCVD (Davidson et. al., 2007). In another study, patients with ASCVD, who received MLN1202 exhibited significant decreases in high-sensitivity C-reactive protein levels, beginning at 4 weeks and continuing through 12 weeks after dosing (PMID: 21247529). A phase II clinical trial (NCT01015560) in patients with bone metastases resulting from unspecified solid tumors, reported that administration of MLN1202 was well tolerated in patients with < 8% reporting serious adverse events although only 14 patients (~32%) had a considerable reduction in urinary N-telopeptide values after 43 days of treatment (PMID: 26885690).

Antibody First Published in: Vergunst et al. Modulation of CCR2 in rheumatoid arthritis: a double-blind,

randomized, placebo-controlled clinical trial. Arthritis Rheum. 2008 Jul;58(7):1931-9 [PMID:18576354](#)

Note on publication: This study examines the effect of CCR2 blockade on synovial inflammation in rheumatoid arthritis.

Product Form

Size: 100 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.