

Anti-CXCL10 [2A] Standard Size Ab03438-7.4

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 rat 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: Rat IgG2a, Fc Silent™, Kappa

Clone Number: 2A

Alternative Name(s) of Target: IP-10; INP10; Mob1; SCYB10; Gamma-IP10; C-X-C motif chemokine 10; 10 kDa interferon gamma-induced protein; Interferon-inducible protein 10; Protein Mob-1; Small-inducible cytokine B10

UniProt Accession Number of Target Protein: P48973

Published Application(s): functional assay, therapeutic, ELISA

Published Species Reactivity: Rat

Immunogen: The original antibody was isolated from a human scFv phage library by panning against purified rat CXCL10. Later on the scFv was reformatted to whole IgG1.

Specificity: This antibody binds rat CXCL10. This pro-inflammatory cytokine is involved in a wide variety of processes such as chemotaxis, differentiation, and activation of peripheral immune cells, regulation of cell growth, apoptosis and modulation of angiostatic effects. This protein plays an important role during viral infections by stimulating the activation and migration of immune cells to the infected sites. Binding of CXCL10 to the CXCR3 receptor activates G protein-mediated signaling and results in downstream activation of phospholipase C-dependent pathway, an increase in intracellular calcium production and actin reorganization.

Application Notes: The binding affinity of this antibody to rat CXCL10 was confirmed using ELISA. The IgG version of this antibody binds rat CXCL10 with a binding affinity of $K_d = 150$ pM. This antibody was capable of inhibiting migration of EL4 cells by CXCL-10 in a migration assay. Quantum dot nanocrystals labelled (Q-Dot-labeled) 2A was to study the movement and distribution of this antibody in collagen induced arthritis animal model using in vivo imaging technique. It was reported that the Q-Dot-labeled antibody was specifically accumulated in the joint area of the forefoot and lower foot, which are inflammation sites. The therapeutic effect of this antibody on arthritis was also studied in preclinical animal models of autoimmune arthritis. It was reported that there was a reduction in cell infiltration in a concentration dependent manner in the anti-CXCL-10-2A treated group, and the destruction of cartilage was also alleviated when compared

to the IgG control treated control group. In the joints of the Anti-CXCL-10-2A injection group, the expression of inflammatory cytokines IL-17, TNF- α , IL-1 β , and IL-6 was low (KR1020130121601).

Antibody First Published in: [PMID:](#)

Note on publication:

Product Form

Size: 200 μ g 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.