**DESCRIPTION**

**Species Reactivity**  Mouse

**Specificity**  Detects mouse CXCL1/GROα/KC/CINC-1 in ELISAs and Western blots. In sandwich immunoassays, less than 40% cross-reactivity with recombinant rat (r) CINC-1 is observed and less than 0.05% cross-reactivity with rCXCL-2a, rCINC-2b, recombinant mouse (m) CRG-2, rmMIG, and rmMIP-2 is observed.

**Source**  Polyclonal Goat IgG

**Purification**  Antigen Affinity-purified

**Immunogen**  E. coli-derived recombinant mouse CXCL1/KC

**Formulation**  Lyophilized from a 0.2 µg/mL solution in sterile PBS.

**Stability & Storage**

**Shipping**  The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Reconstitution**  Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- **Recommended Concentration**  0.1 µg/mL
- **Sample**  Recombinant Mouse CXCL1/GROα/KC/CINC-1 aa 20-96 (Catalog # 453-KC)
- **Western Blot**
- **ELISA Capture**  2-8 µg/mL
- **ELISA Detection**  0.1-0.4 µg/mL
- **Mouse CXCL1/KC Sandwich Immunoassay**  2-8 µg/mL
- **Reagent**  Mouse CXCL1/GROα/KC/CINC-1 Antibody (Catalog # MAB453)
- **ELISA Capture**  2-8 µg/mL
- **ELISA Detection**  0.1-0.4 µg/mL
- **Standard**  Recombinant Mouse CXCL1/GROα/KC/CINC-1 aa 20-96 (Catalog # 453-KC)

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

**Background**

KC, a member of the alpha (CXC) chemokine subfamily, was initially identified as an immediate early gene induced in mouse fibroblasts by platelet-derived growth factor. KC cDNA encodes a 96 amino acid (aa) residue precursor protein with a predicted secretory signal peptide that is removed to yield the mature protein. The protein sequence of mouse KC shows approximately 63% identity to that of mouse MIP-2. KC is also approximately 60% identical to the human GROs. It has been suggested that mouse KC and MIP-2 are the orthologs of the human GROs and rat CINCs. In addition to mouse fibroblasts, KC is expressed in macrophages and endothelial cells. Mouse KC is a potent neutrophil attractant and activator. The functional receptor for KC has been identified as CXCR2. Based on the pattern of KC expression in a number of inflammatory disease models, KC appears to have an important role in inflammation. KC was found to be involved in monocyte arrest on atherosclerotic endothelium and may also play a pathophysiological role in Alzheimer’s disease. Many chemokines are substrates for selective proteolysis at the amino-terminus by various proteases including dipeptidyl peptidase IV or matrix metalloproteinases, resulting in truncated chemokine isoforms with different (both enhanced or reduced) bioactivities. The naturally occurring 68 aa terminal truncated isoform of mouse KC is reported to be a more potent synergistic growth stimulant for CFU-GM. As a chemoattractant for hCXCR2 transfected mouse Baf3 cells, the truncated form of mouse KC (aa 29-96) is also approximately 5-fold more active than 77 aa residue form of KC (aa 20-96, R&D Systems, Catalog # 453-KC) (1-4).

**References:**