Product Information

Anti-CINC-1
produced in goat, affinity isolated antibody

Catalog Number C6354

Product Description
Anti-CINC-1 is produced in goat using as immunogen purified recombinant rat CINC-1, expressed in *E. coli*. Affinity isolated antibody is obtained from goat anti-CINC-1 antiserum by immuno-specific purification which removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the peptide.

Anti-CINC-1 recognizes recombinant rat CINC-1 by various immunochemical techniques including immunoblotting, immunohistochemistry, and neutralization. In immunoblotting, this antibody exhibits less than 50% cross-reactivity with recombinant mouse KC and less than 10% cross-reactivity with recombinant human GROα, GROβ, recombinant human GROγ, and recombinant mouse MIP-2.

Rat CINC-1 (Cytokine-induced Neutrophil Chemoattractant 1) is a member of the CXC subfamily of chemokines which also includes three other rat CXC chemokines (CINC-2α, CINC-2β, CINC-3/MIP-2). CINC-1 shares 63-67 % amino acid sequence identity with the other rat CINCs. The protein sequence of rat CINC-1 is also 68%, 71%, and 69%, identical to human GRO-α, human GRO-β, and human GRO-γ, respectively. Based on their sequence homology, it has been suggested that CINCs are the rat counterpart of the human GROs.

Rat CINC-1 cDNA encodes a 96 amino acid residue precursor protein from which the amino-terminal 24 amino acid residues are cleaved to generate the mature CINC-1. The mature 72 amino acid residue recombinant protein has a predicted molecular mass of approximately 7.8 kDa.

CINC-1 was originally purified as a novel neutrophil chemoattractant from media conditioned by IL-1β stimulated rat kidney epitheloid cells (NRK-52E). Rat CINCs, potent neutrophil attractants and activators, have an important role in the infiltration of neutrophils into inflammatory sites in rats. On the basis of cross-desensitization, it has been postulated that rat neutrophils have at least two classes of CINC receptors: a class of CINC-3-specific receptor as well as a second common receptor shared by all CINCs.

Reagent
Supplied as 100 µg of antiserum lyophilized from a 0.2 µm filtered solution in phosphate buffered saline with 5% trehalose.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
To one vial of lyophilized powder, add 1 mL of sterile phosphate-buffered saline (PBS) to produce a 0.1 mg/ml stock solution of antibody.

Storage/Stability
Prior to reconstitution, store at −20 °C. Reconstituted product may be stored at 2-8 °C for at least one month. For prolonged storage, freeze in working aliquots at −20 °C. Avoid repeated freezing and thawing.

Product Profile
Anti-CINC-1 neutralizes the bioactivity of recombinant rat CINC-1. To measure this biological activity, recombinant rat CINC-1 is incubated with various concentrations of the antibody for 30 minutes at room temperature in a 96 well microplate. Following this preincubation period, cytochalasin-B treated human neutrophils are added to the wells. The assay mixture, in a total volume of 100 µL, containing antibody at concentrations from 0.01 to 100 µg/ml, recombinant rat CINC-1 at 1 µg/ml, and neutrophils at 7.5 x 10⁶ cells/ml, is incubated for 60 minutes. Supernatants are removed and the myeloperoxidase released into the supernatants is measured.
The Neutralization Dose$_{50}$ (ND$_{50}$) for this antibody is 0.15-0.75 µg/mL using chemotaxis of mouse BaF/3 cells transfected with hCXCR2 as the bioassay, when recombinant rat CINC-1 is present at 4 ng/mL.

The exact concentration of antibody required to neutralize recombinant rat CINC-1 activity is dependent on the cytokine concentration, cell type, growth conditions, and the type of activity.

**Immunoblotting:** a working concentration of 0.1-0.2 µg/ml is recommended. The detection limit for recombinant rat CINC-1 is 5 ng/lane under non-reducing and reducing conditions.

**Immunohistochemistry:** a working concentration of 5-15 µg/ml is recommended to detect CINC-1 in rat liver.

**Note:** In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

Endotoxin: < 0.1 EU per 1 µg of the antibody determined by the LAL method.

**References**


