

Rat CXCL1/CINC-1/KC ELISA Kit | CXCL1 elisa kit

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CATALOG #
AAA281391

REACTIVITY
Rat

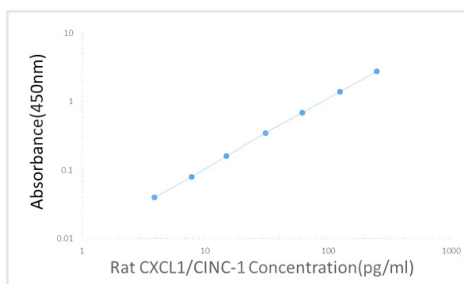
PRODUCT SYNONYMS

CXCL1/CINC-1/KC; Rat CXCL1/CINC-1/KC ELISA Kit; CXCL1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Rat
Specificity	This assay recognizes both recombinant and natural rat CXCL1/CINC-1/KC. The factors listed below were prepared at 50ng/ml and assayed for cross-reactivity.
Sequence Length	107
Assay Type	Quantitative Sandwich
Samples	Cell culture supernates, serum and plasma
Sensitivity	< 1.95 pg/mL
Intra-assay Precision	Three samples of known concentration were tested 20 times on one plate to evaluate the Intra-plate precision.
Inter-assay Precision	Three samples of known concentration were tested 20 times separate assays to evaluate the Inter-plate precision. Assay were using two lots of components.
Preparation and Storage	Store at 4 degree C.

IMAGES



Standard Curve (Sample)

Rat CXCL1/CINC-1/KC ELISA Kit

ADDITIONAL INFORMATION

Related Product Information for CXCL1 elisa kit

Background: Rat Cytokine-Induced Neutrophil Chemoattractant-1 (CINC-1), otherwise known as CXCL1, CINC, rat GROalpha, and rat KC, is an 8 kDa member of the alpha-, or CXC family of chemokines (1-4). It is synthesized as a 96 amino acid (aa) precursor that contains a 24 aa signal sequence plus a 72 aa mature segment (5, 6). In the mature segment, there are two intrachain disulfide bonds plus an ELR and CXC motif. There are no potential N-linked glycosylation sites. The molecule reportedly circulates as a nondisulfide-linked homodimer (1, 5, 7). In the mature region, rat CINC-1 shows 66% and 70% aa sequence identity to rat CINC-2alpha and CINC-3, respectively (1, 5, 8, 9). It shows 92% aa sequence identity to mouse KC and 69% aa sequence identity to human GROalpha (5, 10). Cells known to express CINC-1 are varied and include hepatocytes (11, 12), mast cells (13), macrophages (14-16), neurons (17), Kupffer cells (12), fibroblasts (18), type II greater alveolar cells (19), and cardiac muscle cells (20). The receptor for rat CINC-1 is CXCR2 (21, 22). Although both rat CXCR1-like and CXCR2 have been reported in the literature (22), the CXCR1-like molecule is unresponsive to CXC ligands. Thus, only CXCR2 is considered the functional CINC receptor (21). Functionally, CINC-1 is described as a major neutrophil chemoattractant and activator (1, 13, 23-25). CINC-1, induced by IL-1beta, TNF-alpha and bacterial products, promotes both neutrophil rolling and adhesion, likely through the upregulation of surface integrins (15, 25-28). Thus, it directs neutrophils to sites of bacterially-induced inflammation (27). It is also reported to stimulate neutrophil activity by promoting cathepsin G release from azurophilic granules (23). It does not, however, seem to impact nitrite production (24). Thus it makes a partial contribution to bacterial killing. Relative to CINC-2alpha and CINC-3, CINC-1 seems to be equal in chemotactic activity but less efficient in inducing calcium mobilization (29). It is also induced earlier in macrophages than CINC-2 and -3 and declines more quickly in expression (16). The significance of this is unclear.

Principle of the Assay: This assay employs the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific for CXCL1/CINC-1/KC has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CXCL1/CINC-1/KC present is bound by the immobilized antibody. Following incubation unbound samples are removed during a wash step, and then a detection antibody specific for CXCL1/CINC-1/KC is added to the wells and binds to the combination of capture antibody- CXCL1/CINC-1/KC in sample. Following a wash to remove any unbound combination, and enzyme conjugate is added to the wells. Following incubation and wash steps, a substrate is added. A colored product TMB is formed in proportion to the amount of CXCL1/CINC-1/KC present in the sample. The reaction is terminated by addition of acid and absorbance is measured. A standard curve is prepared from seven CXCL1/CINC-1/KC standard dilutions and CXCL1/CINC-1/KC sample concentration determined.

NCBI AND UNIPROT INFORMATION

NCBI GI #	545686986
NCBI GeneID	102126138
NCBI Accession #	NP_001270423.1
NCBI GenBank Nucleotide #	NM_001283494.1
NCBI Official Full Name	chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)
NCBI Official Symbol	CXCL1
NCBI Protein Information	chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha)

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/rat-elisa-kits/cxcl1-cinc-1-kc/281391>