

Recombinant Rat Cytokine-induced Neutrophil Chemoattractant 1/CXCL1

Information

Gene ID	81503
Accession #	P14095
Alternate Names	GRO-alpha, Platelet-derived Growth Factor-inducible Protein KC
Source	Escherichia coli.
M.Wt	Approximately 7.8 kDa, a single, non-glycosylated polypeptide chain containing 72 amino acids.
AA Sequence	APVANELRCQ CLQTVAGIHF KNIQSLKVMP PGPHTCTQTEV IATLKNGREACLDPEAPMVQ KIVQKMLKGV PK
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using rat neutrophils is in a concentration range of 10-100 ng/ml.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5µg	100µg	500µg
Recombinant Rat Cytokine-induced Neutrophil Chemoattractant 1/CXCL1	5µg	100µg	500µg

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- 12 months from date of receipt, -20 to -70 °C as supplied
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- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rRtCINC-1/CXCL1 as determined by LAL method.

Description

Rat CXCL1, also known as CINC-1, is belonging to the CXC chemokine family. It is encoded by the GRO gene now designated CXCL1. It was originally purified from media conditioned by IL-1 β stimulated rat kidney epithelioid cells. CINC-1 is member of the intercrine alpha (chemokine C-X-C) subfamily of chemokines. CXCL1 is secreted by human melanoma cells, and also expressed by macrophages, neutrophils and epithelial cells. The functional receptor for CXCL1 has been identified as CXCR2. CXCL1 has chemotactic activity for neutrophils, and plays a role in inflammation and wound healing. Amino acid sequence of rat CXCL1 is approximately 68 % identical to the human CXCL1.

Reference

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3. Iida N, Grotendorst GR. 1990. Mol Cell Biol. 10:5596-9
4. Tsai HH, Frost E, To V, et al. 2002. Cell. 110:373-83
5. Moser B, Clark-Lewis I, Zwahlen R, et al. 1990. J Exp Med. 171:1797-802
6. Devalaraja RM, Nanney LB, Du J, et al. 2000. J Invest Dermatol. 115:234-44.

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