CXCL3/CINC-2 alpha Protein, Rat (CHO)

Cat. No.:	HY-P7152
Synonyms:	rRtCXCL3; C-X-C motif chemokine 3; Cytokine-induced neutrophil chemoattractant 2; CINC-2; MIP2-alpha/beta
Species:	Rat
Source:	CHO
Accession:	Q10746 (R33-S100)
Gene ID:	171551
Molecular Weight:	Approximately 7.6 kDa

PROPERTIES

AA Sequence	R E L R C Q C L K T L P R V D F E N I Q S L T V T P P G P H C T Q T E V I A T L K D G Q E V C L N P Q A P R L Q K I I Q K L L K S D K S
Biological Activity	The ED_{50} is <100 ng/mL as measured by CHO-K1/Gα15/rCXCR2 cells (human Gα15 and rat CXCR2 stably expressed in CHO-K1 cells).
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS.
Endotoxin Level	<0.2 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	CXCL3 is also known as MIP-2 beta, or DCIP-1 in mouse, CINC2 in rat, and GRO-gamma in humans. CXCL3 is a member of the CXC chemokine subfamily, and it is subclassified as a Glu-Leu-Arg (ELR+) CXC chemokine. CXCL3 is originally identified in the supernatants of melanoma cell lines in culture, and is referred to as GRO (growth-related oncogene)[1]. Previous studies have reported that CXCL3 is produced by macrophages, osteoblasts, airway epithelium, dendritic cells, synovial fibroblasts, and cancers[2]. The amino acid sequence of human CXCL3 protein has low homology between mouse and rat CXCL3 protein. CXCL3 plays an important role in leukocyte chemotaxis, angiogenesis, tumorigenesis, and cell invasion. CXCL3 exerts its

functions through a number of signaling pathways including p38 MAPK, ERK1/2 MAPK and JAK2/STAT3 etc., by activating CXCR2 receptor. CXCL3 is highly expressed during the number of tumorous conditions including melanoma, prostate, colorectal, aggressive breast cancer tumors, hepatocellular carcinoma (HCC) and also during hepatic injury and inflammation[3][4].

The cancer types affected by the action of CXCL3 (along with CXCL1 and CXCL2) include prostate cancer, pancreatic cancer, melanoma, lung cancer, hepatocellular carcinoma, and gastric cancer[1]. CXCL3 facilitates adipogenic differentiation through ERK- and JNK-induced induction of c/ebpb and c/ebpd by autocrine/paracrine manners in adipocytes[2]. Furthermore, CXCL3 is also associated with vascular invasion and tumor capsule formation[3]. CXCL3 plays a role in asthma severity and asthmatic airway remodeling[5].

REFERENCES

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