

## DCIP-1/CXCL3 Protein, Mouse (P.pastoris)

<b>Cat. No.:</b>	HY-P7337
<b>Synonyms:</b>	rMuDCIP-1/CXCL3; C-X-C motif chemokine 3; Dendritic cell inflammatory protein 1
<b>Species:</b>	Mouse
<b>Source:</b>	P. pastoris
<b>Accession:</b>	Q6W5C0 (A28-S100)
<b>Gene ID:</b>	330122
<b>Molecular Weight:</b>	Approximately 9 kDa

### PROPERTIES

<b>AA Sequence</b>	A V V A S E L R C Q    C L N T L P R V D F    E T 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 G P R L Q    I I I K K I L K S G    K S S
<b>Biological Activity</b>	Measured by its binding ability in a Ca <sup>2+</sup> mobilization assay. The ED <sub>50</sub> value of mouse DCIP-1/CXCL3 on Ca <sup>2+</sup> mobilization assay in CHO-K1/Ga15/mCXCR2 cells (human Ga15 and mouse CXCR2 stably expressed in CHO-K1 cells) is less than 100.0 ng/ml.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>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)<sup>[1]</sup>. Previous studies have reported that CXCL3 is produced by macrophages, osteoblasts, airway epithelium, dendritic cells, synovial fibroblasts, and cancers<sup>[2]</sup>.</p> <p>The amino acid sequence of human CXCL3 protein has low homology between mouse and rat CXCL3 protein.</p>
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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<sup>[3][4]</sup>.

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<sup>[1]</sup>. CXCL3 facilitates adipogenic differentiation through ERK- and JNK-induced induction of *c/ebpb* and *c/ebpd* by autocrine/paracrine manners in adipocytes<sup>[2]</sup>. Furthermore, CXCL3 is also associated with vascular invasion and tumor capsule formation<sup>[3]</sup>. CXCL3 plays a role in asthma severity and asthmatic airway remodeling<sup>[5]</sup>.

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## REFERENCES

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA