**DESCRIPTION**

| Source | E. coli-derived  
|        | Ala38-Arg125 & Ala38-Lys117  
|        | Accession # P97885.1  

**N-terminal Sequence Analysis**  
Ala38

**Predicted Molecular Mass**  
10.1 kDa

**SPECIFICATIONS**

| Activity | Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2.  
|          | The ED_{50} for this effect is 0.03-0.15 µg/mL.  
| Endotoxin Level | <0.10 EU per 1 µg of the protein by the LAL method.  
| Purity | >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.  
| Formulation | Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA with BSA as a carrier protein. See Certificate of Analysis for details.  

**PREPARATION AND STORAGE**

| Reconstitution | Reconstitute at 25 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.  
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  
| 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.  

**BACKGROUND**

LPS-induced CXC chemokine (LIX) is a chemokine originally cloned from LPS-stimulated mouse fibroblasts. Rat LIX shares approximately 74% amino acid (aa) sequence identity with mouse LIX and is likely the rat orthologue to mouse LIX. Rat LIX cDNA encodes a 130 aa residue precursor with a predicted 37 aa residue signal peptide and a 93 aa residue mature protein. Among human CXC chemokines, rat LIX is most closely related to human GCP-2 and ENA-78. Rat LIX also differs from these two human proteins by having an extended carboxy-terminus. The amino-terminal 115 residues of rat LIX shares 59% and 53% aa sequence homology with human GCP-2 and ENA-78, respectively. It is not clear if LIX should be considered an orthologue of GCP-2 or ENA-78. Yet, mouse LIX was alternatively named mouse GCP-2.

Purified recombinant rat LIX is C-terminally truncated. This is consistent with the observation that natural mouse LIX purified from fibroblasts and epithelial cells also contains multiple amino-terminal and carboxy-terminal truncated isoforms. The shorter isoforms of the natural protein were reported to be more active than the longer forms. The bioactivity of rat LIX can be mediated through CXCR2.

**References:**