

#### DESCRIPTION

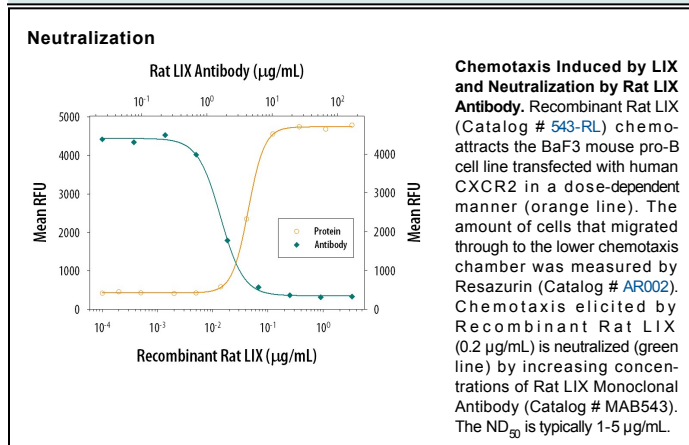
<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat LIX in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse (rm) LIX is observed, 5% cross-reactivity with recombinant rat (rr) CXCL2 is observed, and no cross-reactivity with recombinant human rhCXCL1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, or 13, rmCXCL1, 2, 9, 10, 11, 12, 13, or 15, recombinant porcine (rp) CXCL8, or rrcXCL1 or 3 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 135803
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant rat LIX Ala38-Arg125, Ala38-Lys117 Accession # P97885.1
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	Recombinant Rat LIX (Catalog # 543-RL) under non-reducing conditions only
<b>Rat LIX Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Rat LIX Antibody (Catalog # MAB543)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Rat LIX Biotinylated Antibody (Catalog # BAF543)
<b>Standard</b>		Recombinant Rat LIX (Catalog # 543-RL)
<b>Neutralization</b>		Measured by its ability to neutralize LIX-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR2. The Neutralization Dose (ND <sub>50</sub> ) is typically 1-5 µg/mL in the presence of 0.2 µg/mL Recombinant Rat LIX.

#### DATA



#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

LIX (Liposaccharide-Induced CXC chemokine; also GARG-8) is a secreted 8-10 kDa member of the Interleukin alpha (or Cx<sub>2</sub>C) family of chemokines. It is widely expressed, being produced by diverse cell types such as fibroblasts, thymic epithelium, platelets, vascular endothelium, hepatocytes, lung type II alveolar cells and ileal columnar epithelium. As a chemokine, LIX demonstrates chemotactic properties. It induces the chemotaxis of neutrophils and endothelial cells, and also promotes TNF- $\alpha$  secretion from mast cells and macrophages. Notably, circulating LIX is not derived from fibroblasts, but platelets. This suggests that neutrophil homeostasis/chemotaxis is a function of local resident cell activation and LIX secretion, not generally circulating LIX. Rat LIX is synthesized as a 130 amino acid (aa) precursor that contains a 37 aa signal sequence plus a 93 aa mature region (aa 38-130) that likely possesses a cleavable 13 aa C-terminus (SwissProt #:P97885). The mature region possesses a receptor-binding ELR/GluLeuArg motif between aa 47-50, and an  $\alpha$ -family characteristic Cx<sub>2</sub>C motif between aa 50-52. Although there are no known splice variants of rat LIX, based on mouse, considerable proteolytic processing likely occurs at both the N- and C-termini over aa 38-130. This may reduce the MW in SDS-Page by as much as 3 kDa. The majority of LIX could be expected to start between aa 43-46, and this is likely to be positively correlated with bioactivity. Over aa 38-117, rat LIX shares 73% aa sequence identity with mouse LIX. Although not a strict ortholog, rat LIX also shares 64% aa sequence identity with human GCP-2.