

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse CXCL3/GRO $\gamma$ /CINC-2/DCIP-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant rat CINC-2 is observed.                                                                                           |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse CXCL3/GRO $\gamma$ /CINC-2/DCIP-1<br>Ala28-Ser100<br>Accession # AAI17017                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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>Neutralization</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>   | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

CXCL3 is also known as MIP-2 $\beta$  (macrophage inflammatory protein 2 beta), or DCIP-1 (dendritic cell inflammatory protein-1) in mouse, CINC2 (cytokine-induced neutrophil attractant 2) in rat, and GRO- $\gamma$  (growth-regulated oncogene gamma) in humans (1, 2). It is an 8 kDa proinflammatory member of the CXC subfamily of heparin-binding chemokines, also called alpha chemokines (1-4). The Glu-Leu-Arg (ELR) motif near the CXCL3 N-terminus confers angiogenic properties and distinguishes it from interferon-inducible ELR<sup>-</sup> CXC chemokines, which are angiostatic (4). ELR<sup>+</sup> and ELR<sup>-</sup> chemokines use CXCR2 and CXCR3 receptors, respectively (3, 4). Mature mouse CXCL3 shares 88% and 57% amino acid (aa) sequence identity with rat and human CXCL3, respectively. Among mouse ELR<sup>+</sup> chemokines, it shares 82% aa sequence identity with CXCL2/GRO- $\beta$ /MIP-2 and 34% - 58% with CXCL1/GRO- $\alpha$ /KC, CXCL5/ENA-78 and CXCL7/NAP-2. Due to their similar sequence and activity, CXCL2 and CXCL3 are sometimes referred to collectively as CXCL2/3, but are separate gene products (4-6). Mouse CXCL3 expression is induced in macrophages and early in maturation of DC by bacterial products such as lipopolysaccharides, and other inflammatory mediators (1, 7). It is chemotactic for CXCR2-expressing neutrophils, helping to recruit them to areas of inflammation (1, 7). ELR<sup>+</sup> chemokines also elicit endothelial cell chemotaxis, stimulating angiogenesis and playing a role in tumor development (3, 4). ELR<sup>+</sup> chemokines upregulated by ischemia play a role in ischemia-reperfusion injury (5, 6). A decoy receptor, DARC (Duffy antigen receptor for chemokines) competes with CXCR2 for ELR<sup>+</sup> chemokine binding, thus downregulating their effect (8). Neutrophil influx may also be downregulated by MMP-12, which has been found to inactivate CXCL3 and other ELR<sup>+</sup> chemokines by cleaving them at the ELR site (9). Over aa 28-100, mouse CXCL3 shares 87.8% aa identity with rat CINC2.

#### PRODUCT SPECIFIC NOTICES

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