

# Canine IL-8/CXCL8 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF1608

DESCRIPTION			
Species Reactivity	Canine		
Specificity	Detects IL-8/CXCL8 in direct ELISAs and Western blots. In Western blots, less than 1% cross-reactivity with recombinant human IL-8/CXCL8 recombinant porcine IL-8/CXCL8, recombinant rat (rr) CINC-1, rrCINC-2α, and rrCINC-2β is observed.		
Source	Polyclonal Goat IgG		
Purification	Antigen Affinity-purified		
Immunogen	E. coli-derived recombinant canine IL-8/CXCL8 Ala23-Pro101 & & Val28-Pro101 Accession # P41324		
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.		
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.		

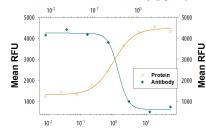
#### APPLICATIONS

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.

	Recommended Concentration	Sample
Western Blot	0.1 μg/mL	Recombinant Canine IL-8/CXCL8 (Catalog # 1608-CL)
Immunocytochemistry	5-15 μg/mL	See Below
Neutralization	Measured by its ability to neutralize IL-8/CXCL8-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR2. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.1-0.5 μg/mL in the presence of 10 ng/mL	

### DATA

# Neutralization Canine IL-8/CXCL8 Antibody (μg/mL)



Recombinant Canine IL-8/CXCL8 (ng/mL)

# Chemotaxis Induced by IL-8/CXCL8 and Neutralization by Canine IL-8/CXCL8

Antibody. Recombinant Canine IL-8/CXCL8 (Catalog # 1608-CL) chemoattracts the BaF3 mouse pro-B cell line transfected with human CXCR2 in a dosedependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002) Chemotaxis elicited by Recombinant Canine IL-8/CXCL8 (10 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Canine IL-8/CXCL8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1608). The ND<sub>50</sub> is typically 0.1-0.5 µg/mL.

#### Immunocytochemistry



Treated



Untreated (control)

IL-8/CXCL8 in Canine PBMCs. IL-8/CXCL8 was detected in immersion fixed canine peripheral blood mononuclear cells (PBMCs) treated with Concanavalin A using Goat Anti-Canine IL-8/CXCL8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1608) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

#### PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 0.2 mg/mL in sterile PBS.

Shipping 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

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- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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#### BACKGROUND

Interleukin 8 (IL-8), also named monocyte-derived neutrophil chemotactic factor (MDNCF), neutrophil-activating protein 1 (NAP-1), neutrophil-activating factor (NAF) and granulocyte chemotactic peptide (GCP), belongs to the Glu-Leu-Arg motif containing (ELR\*) CXC chemokine family and has been designated CXCL8. IL-8 is a potent neutrophil chemoattractant that recruits neutrophils to sites of inflammation. IL-8 also activates neutrophil functions and through a poorly understood mechanism, promotes angiogenesis. The biological activites of IL-8 is mediated by two types of G protein-coupled chemokine receptors, CXCR1 and CXCR2. In normal tissues, IL-8 expression and secretion is barely detectable. Upon stimulation by a wide range of pro-inflammatory signals including exposure to IL-1, TNF, bacterial or viral products, IL-8 production is rapidly induced in many different cell types. Secreted IL-8 is not glycosylated but has N-terminal sequence heterogenecity due to proteolytic processing. In human, two major forms, the 72 amino acid (aa) monocyte-derived IL-8 and the 77 aa endothelial IL-8 have been identified. Whereas the 72 aa isoform is a more potent chemoattractant, only the 77 aa isoform can induce apoptosis in leukemic cells. The N-terminal pentapeptide in the 77 aa isoform has been identified as the active site for the IL-8 apoptotic activity. Canine IL-8 encodes a 101 aa precursor protein with a putative 22 aa signal peptide. It shares 77% and 87% aa sequence identify with human and porcine IL-8, respectively. Similar to human IL-8, recombinant canine IL-8 also undergoes N-terminal processing. Two major peptides (the 79 aa and 74 aa variants that differ by an analogous N-terminal pentapeptide) are present in the recombinant canine IL-8 preparations.

#### References:

- 1. Van Damme, J. et al. (1998) in The Cytokine Handbook, A.W. Thomson, ed., Academic Press, New York., p. 271.
- 2. Terui, Y. et al. (1998) Blood, 92:2672.
- 3. Terui, Y. et al. (1999) Cancer Research 59:5651.

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