

DESCRIPTION

Species Reactivity	Canine
Specificity	Detects canine IL-8/CXCL8 in ELISAs. In ELISAs, no cross-reactivity with recombinant canine (rca) IL-1 β , rcaIL-6, recombinant feline IL-8, recombinant porcine IL-8, or recombinant human IL-8 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 258911
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant canine IL-8/CXCL8 Ala23-Pro101 Accession # P41324
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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.

Canine IL-8/CXCL8 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 μ g/mL	Canine IL-8/CXCL8 Antibody (Catalog # MAB16081)
ELISA Detection	0.5-2.0 μ g/mL	Canine IL-8/CXCL8 Biotinylated Antibody (Catalog # BAM16082)
Standard		Recombinant Canine IL-8/CXCL8 (Catalog # 1608-CL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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.

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 activities 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 heterogeneity 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 identity 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.