

Recombinant Canine Interleukin-8/CXCL8 (Canine IL-8/CXCL8)

Product Information

Product Name	Cat#	Size
	90902ES08	5 µg
Recombinant Canine Interleukin-8/CXCL8 (Canine IL-8/CXCL8)	90902ES60	100 µg
	90902ES76	500 µg

Product Description

Interleukin-8 (IL-8), also known as CXCL8, GCP-1, and NAP-1, is a widely expressed proinflammatory member of the CXC family of chemokines. Near its N-terminus, this 8-9 kDa chemokine contains an ELR motif which is important for its angiogenic properties. CXCL8 can associate into a homodimer or a heterodimer with CXCL4/PF4, and it can also interact with matrix and cell surface glycosaminoglycans. Mature canine CXCL8 shares 87%, 69%, and 82% amino acid (aa) sequence identity with feline, human, and porcine CXCL8. There is no CXCL8 gene counterpart in rodent. N-terminal truncation of CXCL8 by multiple proteases generates a range of shorter forms. The bioactivity of CXCL8 is regulated by these truncations, by CXCL8 citrullination at Arg5 (N-terminal to the ELR motif), and by the decoy receptor DARC. CXCL8 effects are mediated through CXCR1/IL-8 RA, which is also used by CXCL6, and through CXCR2/IL-8 RB, which is used by multiple CXC chemokines. These receptors associate into functional homodimers and heterodimers with each other. Through both CXCR1 and CXCR2, CXCL8 promotes neutrophil adhesion to the vascular endothelium and migration to sites of inflammation. It triggers the antimicrobial activation of neutrophils through CXCR1. CXCL8 also binds to Serpin A1/alpha-1 Antitrypsin, and this prevents CXCL8 interaction with CXCR1. CXCL8 is upregulated in atherosclerotic lesions and other cardiac pathologies where it exacerbates inflammatory tissue damage. In addition, it induces VEGF expression, vascular endothelial cell proliferation, angiogenesis, and tumor cell invasiveness.

Product Properties

Synonyms	(Ser-IL-8)72, GCP/IL-8 protein I, IL8/NAP1 form III, LY NAP, MDNCF-c, NAF
Accession	P41324
GeneID	403850
Source	E.coli-derived Canine IL-8/CXCL8, Ala23-Pro101.
Molecular Weight	Approximately 9.1 kDa.
AA Sequence	AVLSRVSSEL RCQCIKTHST PFHPKYIKEL RVIDSGPHCE NSEIIVKLFN GNEVCLDPKE KWVQKVVQIF LKKA EKQDP
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Biological Activity	The biological activity determined by a chemotaxis bioassay using human CXCR2 transfected murine BaF3 cells is in a concentration range of 0.15-0.75 ng/mL. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 2 × PBS, pH 7.4.

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.

Reconstitution

Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!