

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL8/IL-8 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant canine IL-8, recombinant feline IL-8 and recombinant porcine IL-8 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human CXCL8/IL-8 (R&D Systems, Catalog # 208-IL) Ser28-Ser99 Accession # P10145
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 as a 0.2 µm filtered solution in PBS.

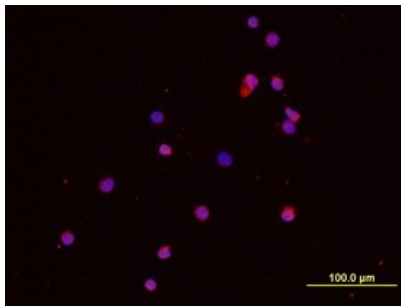
APPLICATIONS

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 Human CXCL8/IL-8 (Catalog # 208-IL)
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize CXCL8/IL-8-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR2. The Neutralization Dose (ND ₅₀) is typically 0.1-0.5 µg/mL in the presence of 20 ng/mL Recombinant Human CXCL8/IL-8.	

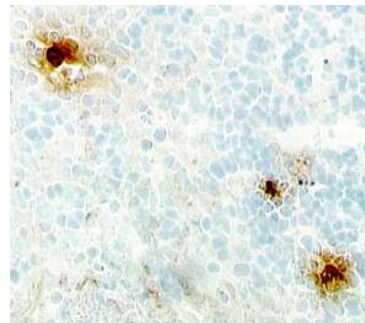
DATA

Immunocytochemistry



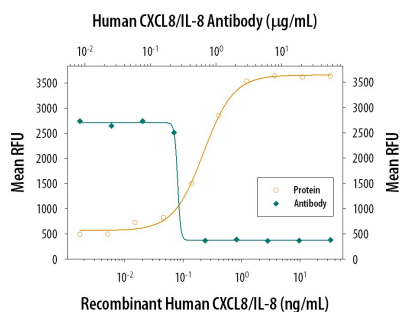
CXCL8/IL-8 in Human PBMCs. CXCL8/IL-8 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) stimulated with PMA and ionomycin using 10 µg/mL Human CXCL8/IL-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-208-NA) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Immunohistochemistry



CXCL8/IL-8 in Human Tonsil. CXCL8/IL-8 was detected in immersion fixed paraffin-embedded sections of human tonsil (surgically removed due to severe EBV-induced mononucleosis) using Human CXCL8/IL-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-208-NA) overnight at 4 °C. Tissue was stained (brown) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Neutralization



Chemotaxis Induced by CXCL8/IL-8 and Neutralization by Human CXCL8/IL-8 Antibody.

Recombinant Human CXCL8/IL-8 (Catalog # 208-IL) chemoattracts the BaF3 mouse pro-B cell line transfected with human CXCR2 in a dose-dependent 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 Human CXCL8/IL-8 (20 ng/mL) is neutralized (green line) by increasing concentrations of Human CXCL8/IL-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-208-NA). The ND₅₀ is typically 0.1-0.5 µg/mL.

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

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 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

CXCL8 was originally discovered and purified independently by a number of laboratories as a neutrophil chemotactic and activating factor. It was also referred to as neutrophil chemotactic factor (NCF), neutrophil activating protein (NAP), monocyte-derived neutrophil chemotactic factor (MDNCF), T-lymphocyte chemotactic factor (TCF), granulocyte chemotactic protein (GCP) and leukocyte adhesion inhibitor (LAI). Many cell types, including monocyte/macrophages, T cells, neutrophils, fibroblasts, endothelial cells, keratinocytes, hepatocytes, chondrocytes, and various tumor cell lines, can produce CXCL8 in response to a wide variety of pro-inflammatory stimuli such as exposure to IL-1, TNF, LPS, and viruses. CXCL8 is a member of the alpha (CXC) subfamily of chemokines, which also includes platelet factor 4, GRO, IP-10, etc.

CXCL8 is a potent chemoattractant for neutrophils. In addition, CXCL8 also has a wide range of other pro-inflammatory effects. CXCL8 causes degranulation of neutrophil specific granules and azurophilic granules. CXCL8 induces expression of the cell adhesion molecules CD11/CD18 and enhances the adherence of neutrophils to endothelial cells and sub-endothelial matrix proteins. Besides neutrophils, CXCL8 is also chemotactic for basophils, T cells and eosinophils. CXCL8 has been reported to be a co-mitogen for keratinocytes and was also shown to be an autocrine growth factor for melanoma cells. CXCL8 was also reported to be angiogenic both *in vivo* and *in vitro*.