

# IL-8 (3H2547): sc-71367

## BACKGROUND

Interleukin-8, or IL-8, the prototypic member of the C-X-C, or  $\alpha$ , family of chemokines, is a chemoattractant cytokine involved in the chemotaxis and activation of neutrophils. IL-8 expression has been correlated to a large number of chronic inflammatory diseases, including inflammatory bowel disease (IBD) and atherosclerosis. IL-8 is cleaved from a 99 amino acid precursor to a 72 amino acid, nonglycosylated, biologically active protein. IL-8 monomers and dimers exhibit a dynamic equilibrium both free in solution and in cell surface-bound forms, and thus regulate chemotaxis and receptor signaling. Research has shown that IL-8 dimerization functions as a negative regulator for IL-8 receptor function. Two IL-8 receptors, designated IL-8RA and IL-8RB, have been described and share 77% sequence identity. Both are seven-transmembrane domain proteins (7TMD), similar to the G protein-coupled receptors and, in addition to IL-8, serve as receptors for other members of the  $\alpha$  and  $\beta$  chemokine families.

## REFERENCES

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2. Laterveer, L., et al. 1996. Rapid mobilization of hematopoietic progenitor cells in rhesus monkeys by a single intravenous injection of interleukin-8. *Blood* 87: 781-788.
3. Ahuja, S.K., et al. 1996. C-X-C chemokines bind to unique sets of selectivity determinants that can function independently and are broadly distributed on multiple domains of human interleukin-8 receptor B. Determinants of high affinity binding and receptor activation are distinct. *J. Biol. Chem.* 271: 225-232.
4. Knall, C., et al. 1996. Interleukin-8 regulation of the Ras/Raf/mitogen-activated protein kinase pathway in human neutrophils. *J. Biol. Chem.* 271: 2832-2838.
5. Ray, E., et al. 1996. Dansyl cadaverine regulates ligand induced endocytosis of interleukin-8 receptor in human polymorphonuclear neutrophils. *FEBS Lett.* 378: 235-239.
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7. Wells, T.N., et al. 1996. Selectivity and antagonism of chemokine receptors. *J. Leukoc. Biol.* 59: 53-60.
8. Fernando, H., et al. 2004. Dimer dissociation is essential for interleukin-8 (IL-8) binding to CXCR1 receptor. *J. Biol. Chem.* 279: 36175-36178.

## SOURCE

IL-8 (3H2547) is a mouse monoclonal antibody raised against full length IL-8 of ovine origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

IL-8 (3H2547) is recommended for detection of IL-8 of ovine, bovine, porcine and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells); non cross-reactive with IL-1  $\beta$ , IL-6, MCP 1 or TNF  $\alpha$  of ovine origin.

Molecular Weight of IL-8: 8 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.