SANTA CRUZ BIOTECHNOLOGY, INC.

IL-8 (5D8): sc-101499

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interleukin-8, or IL-8, the prototypic member of the C-X-C, or α, 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 α and β chemokine families.

REFERENCES

1. Rajarathnam, K., et al. 1994. Neutrophil activation by monomeric interleukin-8. Science 264: 90-92.
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.
6. Grimm, M.C., et al. 1996. Interleukin-8: cells of origin in inflammatory bowel disease. Gut 38: 90-98.
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 CXCR-1 receptor. J. Biol. Chem. 279: 36175-36178.

CHROMOSOMAL LOCATION

Genetic locus: CXCL8 (human) mapping to 4q13.3.

SOURCE

IL-8 (5D8) is a mouse monoclonal antibody raised against recombinant IL-8 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IL-8 (5D8) is recommended for detection of IL-8 of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-8 siRNA (h): sc-39631, IL-8 shRNA Plasmid (h): sc-39631-SH and IL-8 shRNA (h) Lentiviral Particles: sc-39631-V.

Molecular Weight of IL-8: 8 kDa.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **IL-8 (C-11): sc-376750** for IL-8 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.