Interleukin 8

Interleukin 8 (IL8 or chemokine (C-X-C motif) ligand 8, CXCL8) is a chemokine produced by macrophages and other cell types such as epithelial cells, airway smooth muscle cells and endothelial cells. Endothelial cells store IL-8 in their storage vesicles, the Weibel-Palade bodies.

In humans, the interleukin-8 protein is encoded by the CXCL8 gene.

IL-8 is initially produced as a precursor peptide of 99 amino acids which then undergoes cleavage to create several active IL-8 isoforms.

In culture, a 72 amino acid peptide is the major form secreted by macrophages.

There are many receptors on the surface membrane capable of binding IL-8; the most frequently studied types are the G protein-coupled serpentine receptors CXCR1 and CXCR2. Expression and affinity for IL-8 differs between the two receptors (CXCR1 > CXCR2). Through a chain of biochemical reactions, IL-8 is secreted and is an important mediator of the immune reaction in the innate immune system response.