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Benegrastim

National Cancer Institute

Source

National Cancer Institute. *Benegrastim*. NCI Thesaurus. Code C102854.

A recombinant dimeric fusion peptide of the human granulocyte colony-stimulating factor (G-CSF; filgrastim), with immunomodulating and hematopoietic activities. Benegrastim binds to the cell surface G-CSF receptors (G-CSFRs) inducing receptor dimerization and activation of signaling cascades such as the Jak-STAT and mitogen-activated protein kinase pathways. This stimulates neutrophil progenitor proliferation and differentiation. Compared to other preparations of monomer recombinant G-CSF, dimeric filgrastim may allow for stronger activation of G-CSFRs and a faster myeloid precursor response thus enhancing neutrophil recovery upon myelosuppressive therapy.