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# Recombinant Human Interleukin-22 IgG2-Fc

National Cancer Institute

## Source

National Cancer Institute. *Recombinant Human Interleukin-22 IgG2-Fc*. NCI Thesaurus. Code C141419.

A recombinant fusion protein consisting of human cytokine interleukin 22 (IL-22) fused to a human immunoglobulin G2 (IgG2)-Fc, with potential cell protective activity. Upon intravenous administration of recombinant human IL-22 IgG2-Fc, IL-22 binds to its cognate receptor IL-22R, which is highly expressed in parenchymal tissues and epithelial cells at mucosal surfaces. This leads to the activation of IL-22/IL-22R-mediated signal transduction pathways, and results in the activation of signal transducer and activator of transcription 3 (STAT3). STAT3 activation may have a protective and regenerative effect and may protect against the development of various inflammatory and immunological diseases. Specifically, recombinant human IL-22 IgG2-Fc may protect intestinal stem cells from dying due to acute graft-versus-host disease (aGvHD). IL-22, produced by various immune cells and upregulated during inflammation, plays a key role in controlling immune responses and bacterial infection, and in the enhancement of intestinal barrier function, gut immunity, and tissue repair.