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Aldesleukin

National Cancer Institute

Source

National Cancer Institute. *Aldesleukin*. NCI Thesaurus. Code C1498.

A recombinant analog of the endogenous cytokine interleukin-2 (IL-2) with immunoregulatory and antineoplastic activities. Aldesleukin binds to and activates the IL-2 receptor, followed by heterodimerization of the cytoplasmic domains of the IL-2R beta and gamma(c) chains; activation of the tyrosine kinase Jak3; and phosphorylation of tyrosine residues on the IL-2R beta chain, resulting in an activated receptor complex. Various cytoplasmic signaling molecules are recruited to the activated receptor complex and become substrates for regulatory enzymes that are associated with the receptor complex. This agent enhances lymphocyte mitogenesis; stimulates long-term growth of human IL-2 dependent cell lines; enhances lymphocyte cytotoxicity; induces lymphokine-activated killer (LAK) cell and natural killer (NK) cell activities; and induces expression of interferon-gamma. Aldesleukin may induce T cell-mediated tumor regression in some tumor types.