

PRODUCT DESCRIPTION

Interleukin-6 (IL-6) is a pleiotropic growth factor that has important roles in regulating hematopoiesis and the immune response, including inflammation. IL-6 stimulates the proliferation of B cells, T cells and hybridoma cells on its own or in combination with other factors such as IL-2 and γ -interferon. IL-6 has been shown to promote thrombopoiesis *in vivo*. In combination with other growth factors such as IL-3, GM-CSF and SCF, IL-6 also promotes hematopoietic progenitor cell proliferation and differentiation *in vitro*.

The recombinant form of human IL-6 contains 184 amino acid residues and has a predicted molecular mass of approximately 20.3 kDa.

SOURCE

A DNA sequence encoding the mature human IL-6 protein sequence¹ was expressed in *E. coli*.

PURITY

Purity is greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is <1.0 EU per 1 μ g cytokine, as determined by the LAL method.

ACTIVITY

The biological activity of recombinant human IL-6 is measured in a cell proliferation assay using a factor-dependent murine plasmacytoma cell line, T1165.² The ED₅₀ for this effect is typically 0.2 - 0.8 ng/mL.

FORMULATION

Recombinant human IL-6 is lyophilized from a 0.2 μ m filtered solution in phosphate buffered saline (PBS) containing 50 μ g bovine serum albumin per 1 μ g cytokine.

RECONSTITUTION

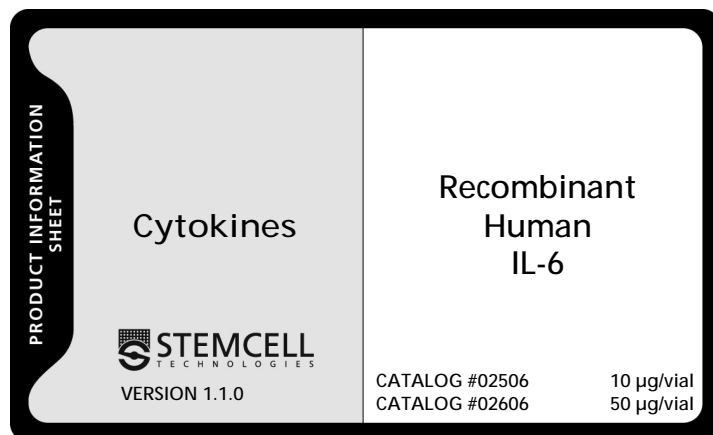
Reconstitute human IL-6 at a concentration greater than 10 μ g/mL with sterile PBS containing at least 0.1% human or bovine serum albumin.

STABILITY AND STORAGE

Lyophilized human IL-6 is stable for up to twelve months from date of receipt at -20°C to -70°C.

Reconstituted human IL-6 can be stored under sterile conditions at 2°C - 8°C for one month, or at -20°C to -70°C (in a manual defrost freezer) for three months without detectable loss of activity.

Avoid repeated freezing and thawing.



REFERENCES

1. Hirano T, Yasukawa K, Harada H, Taga T, Watanabe Y, Matsuda T, Kashiwamura S, Nakajima K, Koyama K, Iwamatsu A, *et al.*: Complementary DNA for a novel human interleukin (BSF-2) that induces B lymphocytes to produce immunoglobulin. *Nature* 324: 73-76, 1986
2. Nordan RP, Pumphrey JG, Rudikoff S: Purification and NH2-terminal sequence of a plasmacytoma growth factor derived from the murine macrophage cell line P388D1. *J Immunol* 139: 813-817, 1987