Recombinant Human Interleukin 6

Catalog Number	Size
AG129-10	10μg
AG129-100	100μg

Specifications and Use

Description Recombinant human IL-6 produced in E.coli is a single, non-glycosylated, polypeptide chain containing 184 amino acids.

Source *E coli*

Molecular Mass Approximately 20.9kDa.

Purity ≥97%, as determined by SDS-PAGE and HPLC method.

Endotoxin Level ≤1EU/μg, determined by the LAL method.

Biological Activity Measured in a cell proliferation assay using B9 -11, the specific activity shall be not less than 1 x 10^7 IU/mg.

Formulation Lyophilized from a 0.2μm filtered solution in PBS containing 0.1% HSA, pH7.4.

Reconstitution It is recommended that sterile PBS containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of not less than 100μg/ml.

Storage Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C.
The reconstituted samples can be stored under sterile conditions at 2- 8°C for one month or at -20°C to -70°C for three months without detectable loss of activity.
Avoid repeated freeze-thaw cycles.

Human Interleukin 6

Interleukin 6 (IL-6) is a pleiotropic **α** helical cytokine that plays important roles in acute phasereactions, inflammation, hematopoiesis, bone metabolism, and cancer progression. IL-6 activity is essential for the transition from acute inflammation to either acquired immunity or chronic inflammatory disease. It is secreted by multiple cell types as a phosphorylated and variably glycosylated molecule. Mature human IL-6 is 183 amino acids (aa) in length and shares 41% aa sequence identity with mouse and rat IL-6. Alternate splicing generates several isoforms with internal deletions, some of which exhibit antagonistic properties. Human IL-6 is equally active on mouse and rat cells. IL6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL-6 R) and a signal transducing subunit (gp130). IL-6 binds to IL-6R, triggering IL-6R association with gp130 and gp130 dimerization. gp130 is also a component of the receptors for CLC, CNTF, CT1, IL-11,IL-27, LIF, and OSM. Soluble forms of IL-6R are generated by both alternate splicing and proteolytic cleavage . In a mechanism known as transsignaling, complexes of soluble IL-6 and IL-6R elicit responses from gp130expressing cells that lack cell surface IL-6R. Transsignaling enables a wider range of cell types to respond to IL-6, as the expression of gp130 is ubiquitous, while that of IL6 R is predominantly restricted to hepatocytes, leukocytes, and lymphocytes. Soluble splice forms of gp130 block transsignaling from IL6/IL6R but not from other cytokines that utilize gp130 as a coreceptor.
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