

Human IL-6 cct-premium

Synonyms: IL6, HGF, HSF, BSF2, IL-6, IFNB2

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
5 µg	1525.950.005		
20 µg	1525.950.020		
50 µg	1525.950.050		
100 µg	1525.950.100		
500 µg	1525.950.500		
1 mg	1525.950.199		

Please enquire for bulk quantities and other vial sizes

Description

Interleukin 6 (IL-6) is a pleiotropic α -helical cytokine that plays important roles in acute phase reactions, 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 22 kDa-28 kDa phosphorylated and variably glycosylated molecule. Mature human IL6 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 IL6 is equally active on mouse and rat cells. IL-6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL6 R) and a signal transducing subunit (gp130). IL-6 binds to IL-6 R, triggering IL-6 R association with gp130 and gp130 dimerization. Soluble forms of IL-6 R are generated by both alternate splicing and proteolytic cleavage. In a mechanism known as trans-signaling, complexes of soluble IL-6 and IL-6 R elicit responses from gp130-expressing cells that lack cell surface IL-6 R. Trans-signaling enables a wider range of cell types to respond to IL-6, as the expression of gp130 is ubiquitous, while that of IL-6 R is predominantly restricted to hepatocytes, leukocytes, and lymphocytes. Soluble splice forms of gp130 block trans-signaling from IL-6/IL-6 R but not from other cytokines that utilize gp130 as a co-receptor.

- **Source** *E. Coli*
- **Purity** $\geq 98\%$ (SDS-PAGE, silver stained)
- **Endotoxin level** $\leq 0.01\text{ng}/\mu\text{g}$ ($\leq 0.1\text{EU}/\mu\text{g}$)

Biological Activity

The ED₅₀ as determined by the dose-dependent stimulation of murine hybridoma B9 cells is in the range of $\leq 10 - 25$ pg/ml.

Reconstitution

The lyophilized IL-6 should be reconstituted in water to a concentration not less than 100µg/ml. This solution can be diluted into other buffered solutions or stored at -20 °C for future use.

Amino Acid Sequence

MAPVPPGEDS KDVAAPHRQP LTSSERIDKQ IRYILDGISA LRKETCNKSN MCESSKEALA ENNLNLPKMA
 EKDGCFQSGF NEETCLVKII TGLLEFEVYL EYLQNRFESE EEQARAVQMS TKVLIQFLQK KAKNLDAITT
 PDPTTNASLL TKLQAQNQWL QDMTTHLILR SFKEFLQSSL RALRQM

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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