

Datasheet for ABIN1589641

IL-6 Protein**1** Publication[Go to Product page](#)

Overview

Quantity:	5 µg
Target:	IL-6 (IL6)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	IL-6
Sequence:	MAPVPPGEDS KDVAAPHRQP LTSSERIDKQ IRYILDGISA LRKETCNKSN MCESSKEALA ENNLNLPKMA EKDGCFQSGF NEETCLVKII TGLLEFEVYL EYLQNRFEES EEQARAVQMS TKVLIQFLQK KAKNLDAITT PDPTTNASLL TKLQAQNQWL QDMTTHLILR SFKEFLQSSL RALRQM
Specificity:	Chromosomal location:7p21
Characteristics:	Length (aa):186
Purity:	> 98 % by SDS-PAGE
Endotoxin Level:	< 0.1 ng per µg (IEU/µg) of rh IL-6

Target Details

Target:	IL-6 (IL6)
Alternative Name:	IL-6 (IL6 Products)

Target Details

Background: 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 gp130expressing 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.

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

Molecular Weight: 21.1 kDa

Gene ID: 3569

NCBI Accession: [NM_000600](#), [NP_000591](#)

UniProt: [P05231](#)

Pathways: [TLR Signaling](#), [Hormone Transport](#), [Negative Regulation of Hormone Secretion](#), [Myometrial Relaxation and Contraction](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Regulation of Carbohydrate Metabolic Process](#), [Autophagy](#), [Cell RedoxHomeostasis](#), [Cancer Immune Checkpoints](#), [Inflammasome](#)

Application Details

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

Comment: Cytokines & Growth Factors

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	The lyophilized IL-6 should be reconstituted in water to a concentration not less than 100 μ g/mL. This solution can be diluted into other buffered solutions or stored at -20 °C for future use.
Buffer:	PBS
Storage:	RT, 0 °C, -20 °C
Storage Comment:	The lyophilized IL-6, though stable at room temperature, is best stored desiccated below 0°C. Reconstituted IL-6 should be stored in working aliquots at -20°C.

Publications

Product cited in:	Poli, Asperti, Ruzzenenti, Mandelli, Campostrini, Martini, Di Somma, Maccarinelli, Girelli, Naggi, Arosio: "Oversulfated heparins with low anticoagulant activity are strong and fast inhibitors of hepcidin expression in vitro and in vivo." in: Biochemical pharmacology , Vol. 92, Issue 3, pp. 467-75, (2014) (PubMed).
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