Active Recombinant Human IL6, His-tagged, Animal Free

Cat. No. IL6-142H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	rhuman Interleukin-6 is a polypeptide chain containing 183 amino acids (30 – 212 of P05231 IL6_HUMAN) and 10 aa Histidine-based tag. It as a predicted molecular mass of 22.2 kDa, however as result of potential glycosylation, the recombinant protein could migrate with an apparent molecular mass of 23-24 kDa in SDS-PAGE gel. Human recombinant protein expressed in Nicotiana benthamiana. Recombinant human Interleukin-6 contains a 10-His-tag at the N-terminal end, is produced by transient expression in non-transgenic plants and is purified by sequential chromatography (FPLC). This product contains no animal–derived components or impurities. Animal free product.
Species	Human
Source	Nicotiana Benthamiana
ProteinLength	30-212 a.a.
Description	Recombinant human IL-6 is an important pro-inflammatory and anti-inflammatory cytokine expressed by many types cell including: T and B cells, macrophages, endothelial cells, fibroblasts, monocytes, keratinocytes and certain tumor cells. It is a multifunctional cytokine that modulates several physiologic processes such as haematopoiesis, stimulation of immunoglobulin synthesis, maturation and activation of B cells, differentiation of T lymphocytes and regulation of the hepatic acute-phase response. IL-6 is also produced in muscle, is discharged into the bloodstream after muscle contraction and acts increasing the breakdown of fats and improving insulin

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	resistance. IL-6 induces signalling 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-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-signalling, complexes of soluble IL-6 and IL-6 R elicit responses from gp130-expressing cells that lack cell surface IL-6 R. Trans-signalling 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.
Form	Recombinant human IL-6 is lyophilized from 10mM Phosphate Potasium buffer pH 7.4 and 50mM NaCl.
Bio-activity	The specific activity is determined by the dose-dependent stimulation of the proliferation of human TF-1 cells (human erytroleukemic indicator cell line). ED50< 1="">
Molecular Mass	rhuman Interleukin-6 is a polypeptide chain containing 183 amino acids (30 – 212 of P05231 IL6_HUMAN) and 10 aa Histidine-based tag. It as a predicted molecular mass of 22.2 kDa, however as result of potential glycosylation, the recombinant protein co
AA Sequence	HHHHHHHHHHVPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKSN MCESSKEALAENNLNLPK MAEKDGCFQSGFNEETCLVKIITGLLEFEVYLEYLQNRF ESSEEQARAVQMSTKVLIQFLQKKAKNLDAITTPDP TTNASLLTKLQAQNQWLQDM TTHLILRSFKEFLQSSLRALRQM
Endotoxin	< 0.04="" eu="" ug="" protein="" (lal="">
Purity	>97% by SDS-PAGE gel

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Applications	Cell culture, Western Blot.
Storage	This lyophilized preparation is stable at 2-8o C for short term, long storage it should be kept at -20oC. Reconstituted rh Il-6 should be stored in working aliquots at –20°C. Repeated freezing and thawing is not recommended.
Reconstitution	Lyophilized protein should be reconstituted in water to a concentration of 50-100 ng/µl. Optimal concentration should be determined for specific application and cell lines. Optimal reconstitution please follow batch Quality Control sheet instructions.

GENE INFORMATION

Gene Name	IL6 interleukin 6 (interferon, beta 2) [Homo sapiens]
Official Symbol	IL6
Synonyms	IL6; interleukin 6 (interferon, beta 2); IFNB2; interleukin-6; BSF2; HGF; HSF; IL 6; CDF; BSF-2; IFN-beta-2; interferon beta-2; interleukin BSF-2; hybridoma growth factor; CTL differentiation factor; B-cell stimulatory factor 2; B-cell differentiation factor; IL-6;
Gene ID	3569
mRNA Refseq	NM_000600
Protein Refseq	NP_000591
MIM	147620
UniProt ID	P05231

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Chromosome Location	7p21-p15
Pathway	ATF-2 transcription factor network, organism-specific biosystem; Adipogenesis, organism-specific biosystem; African trypanosomiasis, organism-specific biosystem; African trypanosomiasis, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem;
Function	cytokine activity; cytokine activity; growth factor activity; interleukin-6 receptor binding; contributes_to interleukin-6 receptor binding; interleukin-6 receptor binding;

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