

Recombinant human IL6, Active, His-tagged

Cat. No. IL6-1558H **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant human 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.

Species Human

Source Nicotiana Benthamiana

ProteinLength 30-212 a.a.

Description Recombinant human Interleukin-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 tumour 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 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

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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 Potassium buffer pH 7.4 and 50mM NaCl.

Molecular Mass Predicted molecular mass of 22.2 kDa, could migrate with an apparent molecular mass of 23-24 kDa in SDS-PAGE gel.

AA Sequence
 HHHHHHHHHVPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGISALRKETCNKSN
 MCESSKEALAENNLNLPK MAEKDGCQSGFNEETCLVKIITGLLEFEVYLEYLQNR
 ESSEEQARAVQMSTKVLQFLQKKAKNLDAITTPDP TTNASLLTKLQAQNQWLQDM
 TTHLILRSFKEFLQSSLRALRQM

Endotoxin < 0.04 EU/µg protein (LAL)>

Purity >97% by SDS-PAGE gel

Storage This lyophilized preparation is stable at 2-8o C for short term, long storage it should be kept at -20oC. Reconstituted protein should be stored in working aliquots at -20°C. Repeated freezing and thawing is not recommended.

Reconstitution Centrifuge vial before opening. Lyophilized protein should be reconstituted in water to a concentration of 50 ng/µl. Optimal concentration should be determined for specific application and cell lines.

GENE INFORMATION

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| 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 |
| 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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