

IL-6 active protein

Human IL-6

CATALOG # AAA79166	HOST E Coli	REACTIVITY Human
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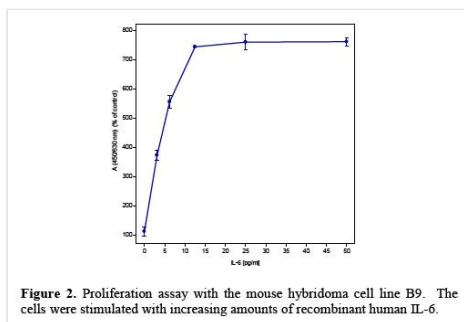
PRODUCT SYNONYMS

IL-6; Human IL-6; CTL differentiation factor; B-cell stimulatory factor 2; Hybridoma growth factor; Interferon beta-2; IL-6 active protein

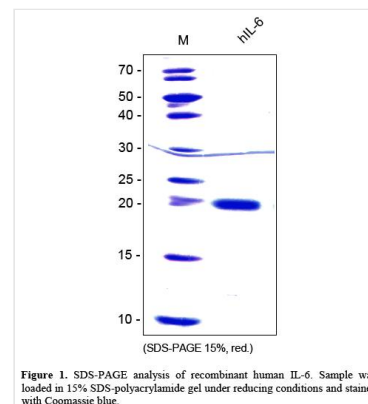
PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Human
Purity/Purification	> 98% by SDS-PAGE & silver stain
Form/Format	Lyophilized
Sequence	MAPVPPGEDS KDVAAPHRQP LTSSERIDKQ IRYILDGISA LRKETCNKSN MCESSKEALA ENNLNLPKMA EKDGCFQSGF NEETCLVKII TGLLEFEVYL EYLQNRFESE EEQARAVQMS TKVLIQFLQK AKNLDAITTP DPTTNASLLT KLQAQNQWLQ DMTTHILIRS FKEFLQSSLR ALRQM
Sequence Length	186
Endotoxin Level	< 0.1ng per ug of IL-6
Stabilizer	None
Buffer	PBS
Result by N-terminal sequencing	MAPVPPGE
Reconstitution	The lyophilized IL-6 should be reconstituted in water to a concentration not less than 100 ug/ml. This solution can be diluted into other buffered solutions or stored at -20°C for future use.
Biological Activity	The ED ₅₀ as determined by the dose-dependent stimulation of murine hybridoma B9 cells is in the range of 2-10 pg/ml.
Preparation and Storage	The lyophilized IL-6, though stable at room temperature, is best stored desiccated below 0 degree C. Reconstituted IL-6 should be stored in working aliquots at -20 degree C.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for IL-6 active protein	Interleukin 6 (IL-6) is a pleiotropic alpha-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.
Product Categories/Family for IL-6 active protein	Cytokines & Growth Factors
References	1. Van Snick, J. (1990) Annu. Rev. Immunol. 8:253. 2. Hodge, D.R. et al. (2005) Eur. J. Cancer 41:2502. 3. Jones, S.A. (2005) J. Immunol. 175:3468. 4. RoseJohn, S. et al. (2006) J. Leukoc. Biol. 80:227. 5. Hirano, T. et al. (1986) Nature 324:73. 6. Alberti, L. et al. (2005) Cancer Res. 65:2. 7. Kestler, D.P. et al. (1995) Blood 86:4559. 8. Kestler, D.P. et al. (1999) Am. J. Hematol. 61:169. 9. Bihl, M.P. et al. (2002) Am. J. Respir. Cell Mol. Biol. 27:48. 10. Chiu, C.P. et al. (1988) Proc. Natl. Acad. Sci. 85:7099. 11. Murakami, M. et al. (1993) Science 260:1808.

NCBI AND UNIPROT INFORMATION

NCBI GI #	10834984
NCBI GeneID	3569
NCBI Accession #	NP_000591
NCBI GenBank Nucleotide #	NM_000600
UniProt Accession #	P05321; Q9UCU2; Q9UCU3; Q9UCU4; P05231
Molecular Weight	21.1 kDa
NCBI Official Full Name	interleukin-6
NCBI Official Synonym Full Names	interleukin 6 (interferon, beta 2)
NCBI Official Symbol	IL6
NCBI Official Synonym Symbols	HGF; HSF; BSF2; IL-6; IFNB2
NCBI Protein Information	interleukin-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
UniProt Protein Name	Interleukin-6
UniProt Gene Name	IL6
UniProt Synonym Gene Names	IFNB2; IL-6; BSF-2; CDF; IFN-beta-2
UniProt Entry Name	IL6_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.